

Atlas of the I_2 Spectrum from 19 000 to 18 000 cm^{-1} *

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A line identification band atlas is presented for a 1000 cm^{-1} segment, from 19 000 to 18 000 cm^{-1} , of the molecular iodine absorption spectrum. Each page of the atlas covers a 20 cm^{-1} region of the spectrum and contains a CALCOMP produced photodensitometer trace of the spectrum together with accompanying tabular identification data. The tabular data includes: line identification numbers, observed wavenumbers, calculated wavenumbers, and rotational and vibrational assignments.

Key words: High-resolution spectrum; iodine spectrum; line identification atlas; rovibronic assignments; spectral analysis; visible absorption spectroscopy.

1. Introduction

The present article represents the first part of a projected band atlas of the $B^3\Pi_{0+u} - X^1\Sigma_g^+$ visible absorption spectrum of the iodine molecule. The region from 19 000 to 18 000 cm^{-1} (from 5261.7 to 5554.0 Å) was chosen for initial study because it exhibits neither the complications of many close-lying upper state vibrational levels found at higher wavenumbers nor the complications of strong hot bands found at lower wavenumbers.

The visible spectrum of I_2 has been extensively studied in the past, of course, and it is not our purpose here to trace the numerous developments in the understanding of that spectrum. Suffice it to say that for the present atlas we have relied heavily on the paper by Wei and Tellinghuisen [1].¹ Measurements here for $J < 100$ agree with the spectrum calculated from the constants of [1] to within ± 0.03 cm^{-1} in most cases and ± 0.01 cm^{-1} in many cases. The vibrational numbering adopted by Wei and Tellinghuisen and used also in the present atlas is that determined by Steinfeld, Zare, Jones, Lesk, and Klemperer [2] and confirmed by Brown and James [3].

We have very recently learned, through a preprint from Gerstenkorn, Luc, and Perrin [4] on the 5350 Å band of iodine and through subsequent correspondence [5], that a study similar to ours is being carried out at the Laboratoire Aimé Cotton in France. The French investigators have measured the iodine visible spectrum interferometrically, obtaining significantly better absolute measurement accuracy, though no appreciable difference in spectral resolution, since the latter is limited in both studies by the molecular line widths. We have received permission [5] to reproduce here (in fig. 1) their display of differences between our measurements and theirs.

The actual band atlas, presented below in figure 2, consists of 50 pages, each containing a 20 cm^{-1} portion of the

spectrum, augmented by a 0.5 cm^{-1} overlap at each end. The figure at the top of each page is a CALCOMP display of a photodensitometer trace of the original photographic record of the spectrum. The tabular material below each spectral trace contains a line identification number, a measured wavenumber, the last four digits of a calculated wavenumber, a rotational assignment, and a vibrational assignment. Measured wavenumbers are presented in the atlas in decreasing numerical order, corresponding to the established optical spectroscopy prescription of "red to the right." More detailed comments on the atlas are presented in section 3 below.

2. Apparatus²

Each I_2 band for which absorption lines fall in the region of the atlas has been photographed, measured and assigned in its entirety. Therefore, the bands actually analyzed extend from about 19 500 to 17 700 cm^{-1} .

The spectral plates were photographed in the 10th, 11th, or 12th order of a 3.34 m Czerny-Turner spectrograph constructed at the National Bureau of Standards by Dr. J. Reader [6, 7]. The spectrograph is equipped with a 300 line/mm, 220 mm long grating blazed at 6 μm , and is capable of delivering close [8] to its theoretical resolving power (726 000 in 11th order). Unfortunately, the Doppler width of I_2 (0.014 cm^{-1} FWHM at 18 500 cm^{-1} and 25 °C), the quadrupole hyperfine pattern width (~ 0.030 cm^{-1}), and the instrumental resolution of the photodensitometer prevent this large resolving power from being fully utilized. The measured I_2 linewidths (FWHM) in the spectra presented are of the order of 0.055 cm^{-1} , corresponding to an effective resolving power of approximately 350 000. Exposure times with a high-pressure xenon source lamp and Kodak V-F plates varied from 5 to 20 min. Iodine pressure in the room-temperature, single-pass, 1-m absorption cell was controlled

* Partially supported by the NBS Laser Chemistry Program.

¹ Figures in brackets indicate the literature references at the end of this paper.

² In order to adequately describe materials and experimental procedures, it was occasionally necessary to identify commercial products by manufacturer's name or label. In no instance does such identification imply endorsement by the National Bureau of Standards, nor does it imply that the particular product or equipment is the best available for the purpose.

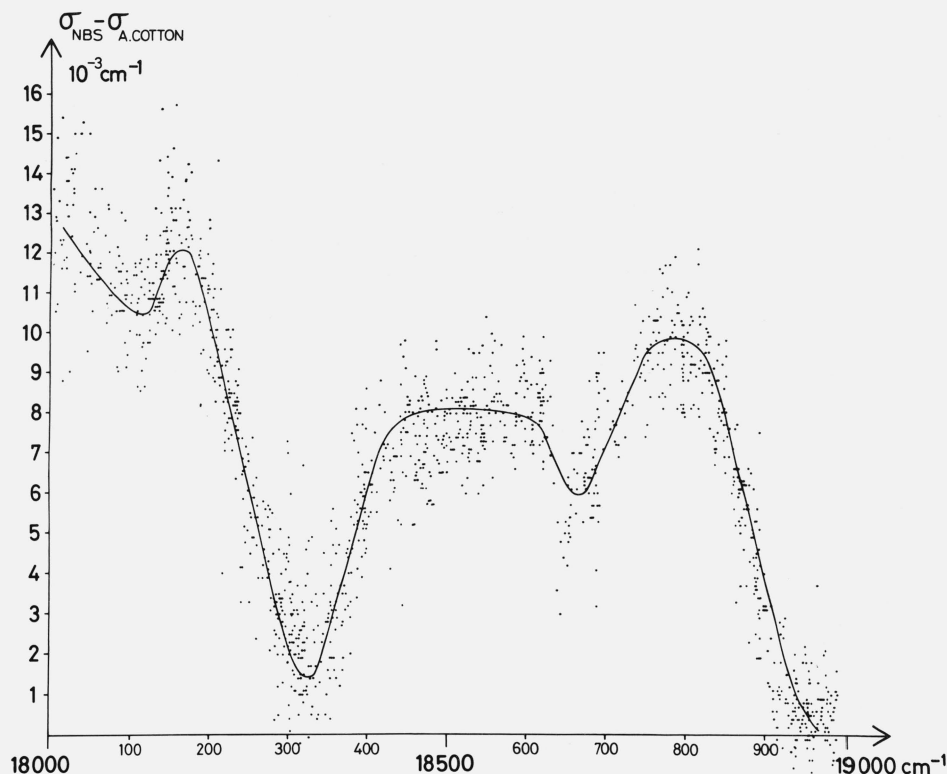


FIGURE 1. A correction curve for the wavenumbers in this atlas kindly supplied by Gerstenkorn and Luc [5], who plot differences between our grating measurements of the I_2 absorption spectrum (σ_{NBS}) and their interferometric measurements ($\sigma_{A.COTTON}$).

by a sidearm cooled to temperatures in the range -11°C to $+6^\circ\text{C}$. Iodine sidearm temperatures and exposure times are indicated in table 1 for each of the five plates used in the spectral illustrations below.

TABLE 1. Iodine sidearm temperatures and exposure times for the spectral figures in this atlas

Spectral region	$T^\circ\text{C}$	Exposure time
19 000–18 920	-6	5 minutes
18 920–18 640	-6	7 minutes
18 640–18 380	-6	5 minutes
18 380–18 180	-11	6.5 minutes
18 180–18 000	-6	6.5 minutes

The I_2 spectrum was measured against thorium emission line standards taken from the extensive catalog of R. Zalubus [9, 10]. Many of the stronger lines have been interferometrically measured, and thorium exposure times were kept short enough to eliminate most of the weaker "grating" lines, but long enough to insure from 20 to 40 standards across a plate encompassing 250 cm^{-1} . Unfortunately, exposure times could not be reduced enough to eliminate all problems with self-reversal, which the computer software described below was not equipped to handle. The interferometrically measured thorium lines are thought to be reliable to $\pm 0.002\text{ cm}^{-1}$ [10], but our third order polynomial fits across one plate (as well as the somewhat higher order fits also examined) gave

standard deviations near 0.0045 cm^{-1} . We believe our large standard deviation arises because a few of the thorium emission linewidths (FWHM) approached 0.2 cm^{-1} , or about four times the I_2 absorption linewidths. Our inability to achieve better polynomial fits to the thorium standards represents the principal limitation to obtaining more accurate measurements of the present I_2 spectrum. Based on these considerations, we estimated the I_2 measured wavenumbers to have an absolute accuracy of $\pm 0.015\text{ cm}^{-1}$. This estimate was confirmed just prior to publication by the more accurate measurements of Gerstenkorn, Luc, and Perrin [4, 5], as shown in figure 1.

The photographic plates were measured on a Grant comparator, which automatically digitally recorded on magnetic tape photodensitometer readings at equidistant $3\text{ }\mu\text{m}$ intervals (about $1/20$ of the I_2 FWHM) for both the unknown (I_2) and standard (thorium) channels. The photodensitometer slit width was equivalent to approximately $9\text{ }\mu\text{m}$ on the photographic plates. The magnetic tape record of the photographic plate density was then reduced to a sequentially numbered I_2 line list in cm^{-1} and a CALCOMP spectral trace, using slightly modified versions of computer programs originally written by Dr. A. Maki [11] for reducing infrared data. Subroutines in his programs automatically locate the centers of absorption or emission lines in the two channels, fit the unknown channel against the standard channel, and invoke various criteria (excessive breadth, weakness, etc.) to eliminate undesirable lines from further consideration.

3. Detailed Remarks on the Atlas

To the extent practical, spectra are reproduced in figure 2 with a wavenumber scale equal to 1 cm^{-1} per cm.

The intensity scale is rather arbitrary. Iodine pressures and exposure times were chosen to minimize saturation of the strongest lines and maximize contrast between bands originating in the $v'' = 0$ level and bands originating in $v'' = 1$ and 2. Nonetheless, an intensity alternation approximating the theoretical value of 7:5 for odd:even values of J is clearly visible in unblended portions of both the strong and weak branches.

Unfortunately, it proved impossible to photograph and develop an entire set of plates without encountering some small pinholes and/or scratches in the emulsion, which ultimately show up as apparent absorption lines in the CALCOMP spectrum. It was decided to present as large a portion of spectrum as possible from a single plate in order to preserve as much relative intensity information as possible, rather than to present only blemish-free regions from a large number of plates. We have thus attempted to locate as many of these false absorption lines as possible, by examining each plate for blemishes and by comparing CALCOMP spectra obtained from different plates. We have indicated the "correct" spectrum in the region of false absorption lines thus identified by hand-drawn dotted lines.

The columns headed LINE contain the arbitrary sequential line identification number for "ticked" lines in the spectral figures, or contain a blank for "unticked" lines.

The columns headed OBS CM-1 contain measured wavenumbers for each line. Measurements for ticked lines were obtained by processing the spectrum actually shown in the figure. Measurements for unticked lines were obtained from other plates, taken at significantly higher iodine pressures to enhance the weaker lines without concern for the attendant saturation and broadening of the stronger lines. Occasional asterisk entries in this column indicate a line clearly visible in the spectral figure for which an assignment and calculated value, but no measurement, is available.

Each column headed CALC contains the last four digits of calculated wavenumbers approximately equal to the measured wavenumbers in the OBS column immediately to the left. If more than one transition is calculated to lie within the contour of a given measured line in the spectral figure, these several calculated values are given in order of decreasing wavenumber immediately to the right and below the measured line in question. For each branch of the $(v' - 0)$ and $(v' - 1)$ bands, no calculated transitions are presented having J values above the last observed line in the branch (as discussed below). For each branch of the $(v' - 2)$ bands and the $(31 - 1)$ band, no calculated transitions are presented having J values below the first observed line or above the last observed line in the branch. Occasional asterisk entries in this column indicate false absorption lines introduced by the emulsion blemishes described above.

The columns headed ASSIGNMENT contain the rotational branch (P, R) and J assignment followed by the vibrational $(v' - v'')$ assignment of the calculated wavenumber immediately to the left, or contain the word ARTIFACT to indicate a false absorption line.

In almost all cases, the contour of a given spectral line can be understood by taking into account the one or more calcu-

lated values associated with it, together with intensity information obtained from examination of nearby unblended lines in the same branch(es).

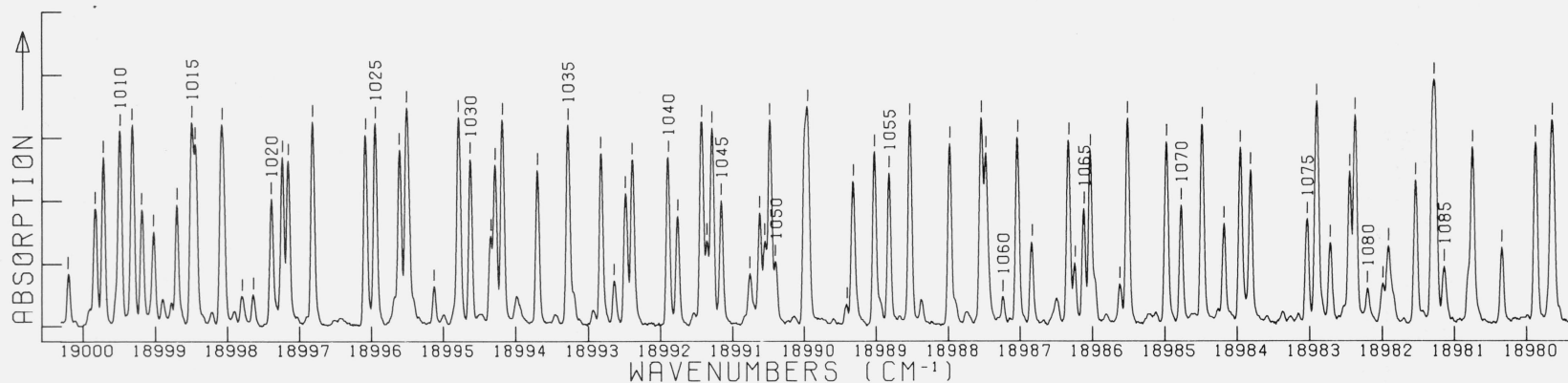
Calculated wavenumbers presented in the CALC columns were obtained from least squares fits of unblended P and R branch lines for each individual $(v' - v'')$ band. Unblended lines were chosen by visual inspection, taking into consideration the intensity alternation and overall intensity variation expected within a given branch, and the essentially constant linewidth expected in each spectral region. For each branch of each band it proved impossible to find unblended lines below a certain minimum J value, and impossible to find lines at all above a certain maximum J value. Thus, for any branch, three types of calculated values can be defined: those interpolated between the minimum and maximum J values used in the fit, those extrapolated to low J beyond lines used in the fit, and those extrapolated to high J beyond lines used in the fit. In no cases are calculated values corresponding to high J extrapolations presented in this atlas. For $(v' - 0)$ and most $(v' - 1)$ bands, all calculated values corresponding to low J extrapolations are presented. For the much weaker $(v' - 2)$ bands and the $(31 - 1)$ band no calculated values corresponding to low J extrapolations are presented.

Least squares fits of the unblended lines in each individual $(v' - v'')$ band were carried out by varying the parameters ν_0 , B' , B'' , D' , D'' , H' , H'' , and sometimes L' in equations of the form

$$\begin{aligned} R(J) &= + B'_{v'}(J+1)(J+2) - D'_{v'}(J+1)^2(J+2)^2 \\ &\quad + H'_{v'}(J+1)^3(J+2)^3 + L'_{v'}(J+1)^4(J+2)^4 \\ &\quad - B''_{v''}J(J+1) + D''_{v''}J^2(J+1)^2 \\ &\quad - H''_{v''}J^3(J+1)^3 + \nu_0(v', v'') \end{aligned} \quad (1)$$

$$\begin{aligned} P(J) &= + B'_{v'}J(J-1) - D'_{v'}J^2(J-1)^2 \\ &\quad + H'_{v'}J^3(J-1)^3 + L'_{v'}J^4(J-1)^4 \\ &\quad - B''_{v''}J(J+1) + D''_{v''}J^2(J+1)^2 \\ &\quad - H''_{v''}J^3(J+1)^3 + \nu_0(v', v''). \end{aligned}$$

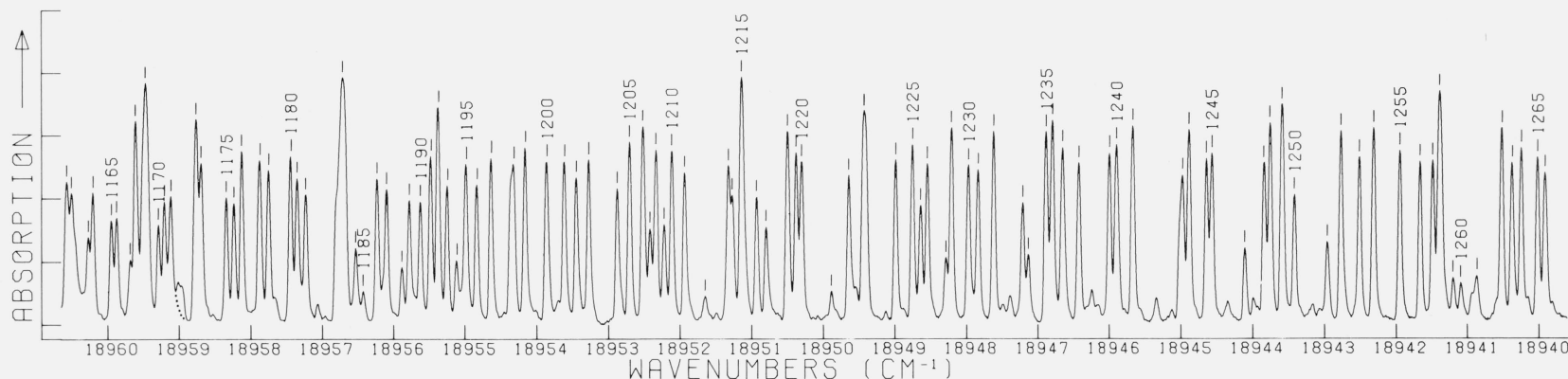
Values of the parameters and standard deviations obtained from these band-by-band least squares fits, and of J_{\min} , J_{\max} and the number of lines in each branch included in the fit, are given in table 2. *The reader is emphatically warned that these band-by-band parameters must not be treated as true molecular constants.* In particular, they should not be used to extrapolate branches beyond J values used in the fits (though with some misgivings we ourselves have violated this precept in presenting calculated values for all low J lines in the $(v' - 0)$ and $(v' - 1)$ heads). Neither should the band-by-band parameters be further reduced to obtain structural information for the I_2 molecule. These parameters are useful, however, and have been used in this atlas, to calculate *interpolated* line positions within a branch; they are presented in table 2 with sufficient precision to permit such back-calcu-



LINE	OBS	CW-M	CALC	ASSIGNMENT	LINE	OBS	CW-M	CALC	ASSIGNMENT	LINE	OBS	CW-M	CALC	ASSIGNMENT	LINE	OBS	CW-M	CALC	ASSIGNMENT					
1007	1990.001	2.024	R129	(40-0)	1025	18995.945	5.946	P 39	(35-0)	1038	18992.478	2.481	R 94	(37-0)	1074	18983.814	3.814	R 78	(36-0)					
1008	18999.829	9.915	R151	(43-0)		18995.679	5.687	P160	(45-0)			2.464	R139	(41-0)			18983.373	3.376	P152	(43-0)				
		9.835	R119	(39-0)			5.683	R157	(44-0)	1039	18992.382	2.383	P 72	(36-0)			18983.155							
		9.825	P127	(40-0)	1026	18995.607	5.612	R120	(39-0)	1040	18991.889	1.889	P 12	(35-0)	1058	18987.903	7.897	R153	(43-0)	1075	18983.035	3.036	P109	(38-0)
1009	18999.714	9.714	P 36	(35-0)			5.608	R 93	(37-0)	1041	18991.755	1.755	R109	(38-0)			7.564	P 45	(35-0)	1076	18982.900	2.907	P 48	(35-0)
1010	18999.487	9.487	P 54	(36-0)	1027	18995.505	5.511	P144	(41-0)	1042	18991.504	1.504	P156	(40-0)	1059	18987.480	7.480	R140	(36-0)			2.797	P 91	(37-0)
		9.486	P 69	(36-0)			5.499	R130	(40-0)	1043	18991.421	1.421	R 45	(35-0)			7.414	P138	(41-0)			2.825	R159	(44-0)
1011	18999.316	9.378	R161	(45-0)			5.487	R108	(38-0)	1044	18991.348	1.350	R121	(39-0)	1060	18987.242	7.246	R140	(41-0)	1077	18982.711	2.725	P146	(42-0)
		9.315	R 39	(35-0)			5.413	P150	(43-0)	1045	18991.275	1.276	R 75	(36-0)	1061	18987.041	7.050	R122	(39-0)			2.713	R123	(39-0)
1012	18999.184	9.182	R107	(38-0)	1028	18995.127	5.130	P128	(40-0)	1046	18991.149	1.149	P 92	(37-0)			7.039	R 48	(35-0)	1078	18982.443	2.443	P 76	(36-0)
1013	18999.021	9.022	P117	(39-0)						1047	18990.750	0.754	R131	(40-0)	1062	18986.842	6.844	P108	(38-0)	1079	18982.366	2.367	R 51	(35-0)
		9.021	R188	(46-0)	1029	18994.786	4.802	P118	(39-0)	1048	18990.613	0.614	P107	(38-0)						1080	18982.198	2.201	P101	(41-0)
		9.008	R186	(46-0)			4.784	P 71	(36-0)	1049	18990.542	0.542	P119	(39-0)	1063	18986.530	6.335	R 77	(36-0)			2.160	P102	(41-0)
1014	18998.698	8.699	R 92	(37-0)	1030	18994.625	4.626	P 40	(35-0)	1050	18990.472	0.472	P 43	(35-0)	1064	18986.246	6.249	P120	(39-0)	1081	18981.986	1.986	R141	(41-0)
1015	18998.488	8.490	P 37	(35-0)	1031	18994.347	4.349	P106	(38-0)	1051	18990.394	0.396	P129	(40-0)	1065	18986.122	6.123	R 96	(37-0)	1082	18981.910	1.915	P121	(39-0)
1016	18998.439	8.435	R 72	(36-0)	1032	18994.285	4.285	P 91	(37-0)	1052	18989.955	0.993	R 46	(35-0)	1066	18986.030	6.030	P 46	(35-0)			1.878	R148	(42-0)
		8.420	R138	(41-0)	1033	18994.182	4.181	R 43	(35-0)			0.948	R 73	(36-0)			5.959	R132	(40-0)			1.819	R154	(43-0)
1017	18998.071	8.080	R 40	(35-0)			3.983	P144	(42-0)			18989.590					5.820	R163	(45-0)	1083	18981.533	1.534	P 95	(37-0)
		8.071	P105	(38-0)			3.929	P152	(40-0)	1053	18989.510	0.510	P151	(43-0)	1067	18985.619	5.622	P130	(40-0)	1084	18981.278	1.278	R 49	(29-0)
1018	18997.902	7.900	P155	(44-0)	1034	18993.697	3.696	R 74	(36-0)	1054	18989.319	0.320	R 95	(37-0)	1068	18985.514	5.514	P145	(42-0)			1.260	R 79	(36-0)
1018	18997.793	7.799	P136	(41-0)	1035	18993.273	3.273	P 41	(35-0)			0.278	R158	(44-0)			5.132	P157	(44-0)	1085	18981.139	1.144	R133	(40-0)
1019	18997.635	7.640	R138	(41-0)			3.190	R146	(42-0)	1055	18989.024	0.024	P 44	(35-0)	1069	18984.978	4.978	P 75	(36-0)	1086	18980.745	0.809	P131	(40-0)
1020	18997.384	7.385	P 90	(37-0)			18992.930			1056	18988.948	8.939	P161	(45-0)	1070	18984.772	4.772	P 94	(37-0)			0.745	R 52	(35-0)
1021	18997.233	7.233	P 38	(36-0)	1036	18992.817	2.817	R 44	(35-0)	1057	18988.821	8.822	R 76	(36-0)	1071	18984.485	4.485	P 47	(35-0)	1087	18980.339	0.340	R112	(38-0)
1022	18997.152	7.152	P 30	(36-0)	1037	18992.635	2.641	P162	(45-0)	1058	18988.532	8.532	P145	(42-0)			4.775	P 77	(36-0)	1088	18979.675	0.675	R 79	(36-0)
1023	18996.813	6.813	R 41	(35-0)			2.624	R162	(45-0)			8.376			1072	18984.268	4.268	R111	(38-0)	1089	18979.648	0.648	P 50	(35-0)
1024	18996.082	6.082	R 73	(36-0)						1073	18983.956	3.956	R 50	(35-0)			4.181	R111	(38-0)			9.625	R 98	(37-0)

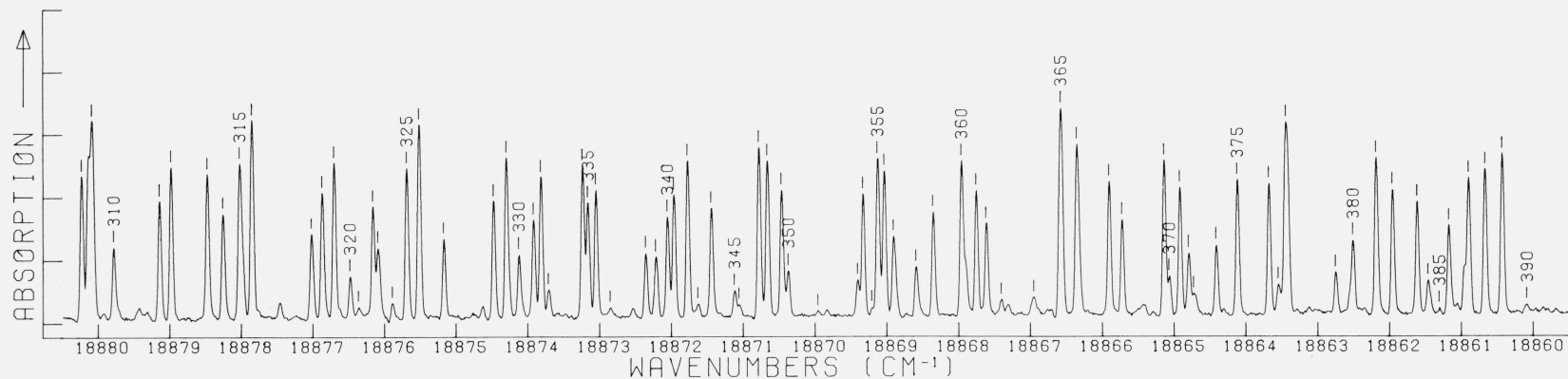
FIGURE 2. *Line identification atlas of the I₂ absorption spectrum from 19 000 to 18 000 cm⁻¹. See section 3 of the text for details.*

LINE	OBS	CM-1	CALC	ASSIGNMENT	LINE	OBS	CM-1	CALC	ASSIGNMENT	LINE	OBS	CM-1	CALC	ASSIGNMENT	LINE	OBS	CM-1	CALC	ASSIGNMENT
1087	18980.339	0.340	R112	(38-0)	1104	18975.686	5.695	R155	(43-0)	1121	18970.704	0.705	R 83	(36-0)	1139	18965.507	5.513	P49	(42-0)
1088	18979.875	9.875	P 77	(35-0)			5.684	R 55	(35-0)	1122	18970.333	0.390	R150	(42-0)	1140	18965.358	5.358	P 58	(35-0)
1089	18979.648	9.656	P 70	(36-0)	1105	18975.310	5.313	P111	(38-0)			0.332	R 58	(35-0)	1141	18965.224	5.225	R 55	(35-0)
		9.625	R 98	(37-0)			5.291	P163	(45-0)		18969.881					18965.108			
	18979.558				1106	18974.949	4.950	P 97	(37-0)		18969.773	9.773	R161	(44-0)	1142	18964.976	4.978	R127	(39-0)
1090	18979.191	9.193	P110	(38-0)	1107	18974.636	4.637	P 79	(36-0)	1123	18969.612	9.614	R101	(37-0)	1143	18964.809	4.810	P100	(37-0)
1091	18979.090	9.090	R 53	(38-0)	1108	18974.537	4.537	53	(35-0)	1124	18969.466	9.525	R156	(43-0)	1144	18964.689	4.688	R 61	(33-0)
1092	18978.671	8.672	R 80	(36-0)	1109	18973.930	3.933	R 93	(37-0)		9.470	9.470	R157	(43-0)	1145	18964.604	4.604	R128	(39-0)
1093	18978.333	8.337	R124	(39-0)			3.922	R125	(39-0)	1125	18969.263	9.264	P 81	(36-0)		4.581	R151	(42-0)	
1094	18978.258	8.259	P 96	(37-0)	1110	18973.394	3.394	R 82	(36-0)	1126	18969.127	9.127	P 56	(35-0)	1146	18964.198	4.202	P125	(39-0)
1095	18977.981	7.982	P 51	(35-0)	1111	18973.134	3.135	P123	(39-0)	1127	18968.683	8.688	P124	(39-0)	1147	18963.757	3.758	P 83	(36-0)
1096	18977.541	7.544	P122	(39-0)	1112	18972.985	2.986	R100	(37-0)	1128	18968.595	8.595	R115	(38-0)	1148	18963.429	3.455	P114	(38-0)
1097	18977.403	7.403	R 54	(35-0)	1113	18972.766	2.766	P 54	(35-0)	1129	18968.484	8.483	R 59	(35-0)		3.425	P 59	(35-0)	
1098	18977.273	7.272	R 78	(36-0)	1114	18972.547	2.547	R114	(38-0)		8.392	P164	(45-0)	1149	18963.312	3.308	R115	(43-0)	
					1115	18972.431	2.431	P147	(43-0)		8.225	P 65	(37-0)	1150	18962.750	2.750	P163	(45-0)	
	18976.916	6.919	P140	(41-0)	1115	18972.149	2.149	R 57	(35-0)	1130	18968.226	8.226				2.742	R 62	(35-0)	
1099	18976.679	6.684	R142	(41-0)	1116	18971.966	1.967	R 80	(36-0)	1131	18967.281	7.282	R 84	(36-0)	1151	18962.434	2.434	R 86	(36-0)
1100	18976.461	6.462	R113	(38-0)	1117	18971.601	1.605	P 98	(37-0)	1132	18967.445	7.444	P113	(38-0)	1152	18961.783	1.796	R 1	(34-0)
1101	18976.280	6.323	R 99	(37-0)			1.596	P141	(41-0)	1133	18967.259	7.259	P 57	(35-0)		1.784	R 0	(34-0)	
		6.323	R160	(44-0)	1118	18971.388	1.397	P112	(38-0)	1134	18966.603	6.602	R 60	(35-0)		1.777	R 2	(34-0)	
		6.279	R134	(40-0)			1.373	R135	(40-0)	1135	18966.527	6.528	P 82	(36-0)	1153	18961.729	1.727	R 3	(34-0)
		6.275	P 52	(35-0)			1.341	R143	(41-0)	1136	18966.427	6.428	R136	(40-0)	1154	18961.649	1.666	P 1	(34-0)
	18976.157	6.156	R144	(42-0)			1.294	P148	(42-0)	1137	18966.208	6.231	P142	(41-0)		1.646	P 4	(34-0)	
1102	18976.049	6.050	R 81	(36-0)		18971.152					6.207	R102	(37-0)	1155	18961.535	1.560	P 2	(34-0)	
1103	18975.953	5.956	P132	(40-0)	1119	18971.060	1.064	P133	(40-0)	1138	18966.128	6.131	P134	(40-0)		1.532	R 5	(34-0)	
					1120	18970.962	0.962	P 55	(35-0)		18965.055	5.955	R144	(41-0)					
											18965.055	5.955	R144	(41-0)					
											6.207	R102	(37-0)						
											6.131	P134	(40-0)						
											5.955	R144	(41-0)						
											18965.055	5.955	R144	(41-0)					
											6.207	R102	(37-0)						
											6.131	P134	(40-0)						
											5.955	R144	(41-0)						
											18965.055	5.955	R144	(41-0)					
											6.207	R102	(37-0)						
											6.131	P134	(40-0)						
											5.955	R144	(41-0)						
											18965.055	5.955	R144	(41-0)					
											6.207	R102	(37-0)						
											6.131	P134	(40-0)						
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											6.207	R102	(37-0)						
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											18965.055	5.955	R144	(41-0)					
											6.207	R102	(37-0)						
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											18965.055	5.955	R144	(41-0)					
											6.207	R102	(37-0)						



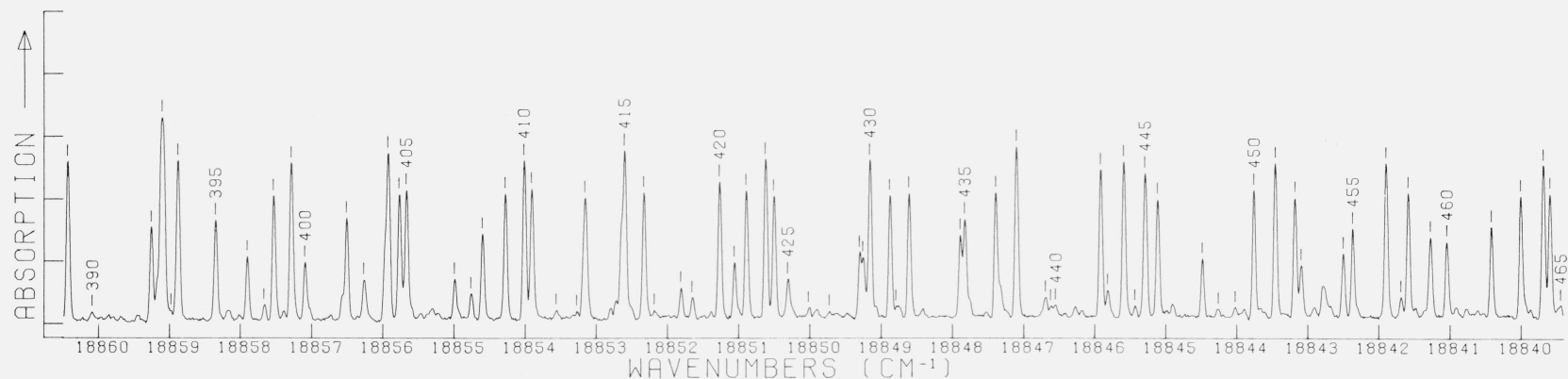
LINE	OBS	CM-1	CALC	ASSIGNMENT	LINE	OBS	CM-1	CALC	ASSIGNMENT	LINE	OBS	CM-1	CALC	ASSIGNMENT	LINE	OBS	CM-1	CALC	ASSIGNMENT			
1161	18950.571	0.581	R117 (38-0)		1181	18957.340	7.340	P 15 (34-0)		1201	18953.610	3.610	P 21 (34-0)		1224	18948.987	8.986	P 66 (35-0)				
	0.562	P 7 (34-0)		1182	18957.220	7.220	R 18 (34-0)		1202	18953.445	3.446	R 24 (34-0)		1225	18948.875							
1162	18960.503	0.527	R145 (41-0)		1183	18957.059	7.044	R158 (43-0)		1203	18953.275	3.274	P 64 (35-0)		1226	18948.753	8.753	P 27 (34-0)	1246	18944.110	4.110	R121 (38-0)
	0.499	R10 (34-0)		1183	18956.700	6.797	P 16 (34-0)		1204	18952.878	2.879	P 22 (34-0)		1226	18948.638	8.639	R107 (37-0)		18943.992	3.989	R148 (41-0)	
	0.449	R128 (39-0)				6.750	R 88 (36-0)			2.828	R153 (42-0)		1227	18948.543	8.543	R 30 (34-0)	1247	18943.843	3.843	P 32 (34-0)		
1163	18960.268	0.268	R 8 (36-0)			6.707	R 65 (35-0)		1205	18952.707	2.707	R 25 (34-0)		1228	18948.283	8.284	R120 (38-0)	1248	18943.757	3.757	R 71 (35-0)	
1164	18960.202	0.199	P 18 (34-0)			6.669	R 109 (36-0)		1206	18952.521	2.521	R 67 (35-0)		1229	18948.208	8.205	R 25 (35-0)	1249	18943.590	3.590	P 33 (34-0)	
1165	18959.943	0.944	P 9 (34-0)	1184	18956.520	6.519	R118 (38-0)		1207	18952.421	2.420	R181 (38-0)		1230	18947.968	7.970	P152 (42-0)			3.843	P106 (37-0)	
1166	18959.867	0.867	R 12 (34-0)	1185	18956.417	6.417	R138 (40-0)		1208	18952.339	2.339	R 77 (36-0)			7.907	P152 (42-0)	1250	18943.118	3.419	P 90 (36-0)		
1167	18959.677	0.686	P150 (42-0)	1186	18956.222	6.222	P 17 (34-0)		1209	18952.223	2.224	R106 (36-0)		1231	18947.834	7.834	P 28 (34-0)		18943.166			
	0.679	P126 (39-0)	1187	18956.087	6.147	P136 (40-0)		1210	18952.115	2.116	P 23 (34-0)		1232	18947.615	7.616	R 31 (34-0)	1251	18942.957	2.958	P119 (38-0)		
1168	18959.604	0.609	R 87 (36-0)		6.087	R 20 (34-0)		1211	18951.937	1.937	R 26 (34-0)			18947.487			1252	18942.766	2.767	P 33 (34-0)		
	0.589	P 10 (34-0)	1188	18955.875	5.880	R129 (39-0)		1212	18951.649				18947.389	7.390	P167 (45-0)	1253	18942.509	2.509	P 36 (34-0)			
1169	18959.463	0.504	R 13 (34-0)	1189	18955.770	5.773	R105 (37-0)		1213	18951.325	1.350	R139 (40-0)		1233	18947.209	7.209	P105 (37-0)	1254	18942.310	2.310	P 69 (35-0)	
	0.480	P 9 (34-0)	1190	18955.663	5.616	R190 (36-0)			1.323	P 24 (34-0)		1234	18947.130	7.131	P 131 (38-0)	1255	18941.943	1.946	R 153 (32-0)			
	0.429	R115 (38-0)	1191	18955.474	5.474	R 21 (34-0)	1214	18951.272	1.273	R130 (39-0)		1235	18946.883	6.883	R154 (42-0)		1.956	R 136 (36-0)				
1170	18959.285	0.286	R104 (37-0)		5.375	P144 (41-0)			1.267	P117 (38-0)				6.883	R 29 (34-0)		1.943	R132 (39-0)				
1171	18959.202	0.201	P 11 (34-0)		5.369	P 63 (35-0)	1215	18951.141	1.147	P 65 (35-0)		1236	18946.794	6.793	P 67 (35-0)	1256	18941.659	1.659	P 34 (34-0)			
1172	18959.111	0.110	R 14 (34-0)		5.366	P116 (38-0)			1.135	R 27 (34-0)		1237	18946.654	6.657	R 32 (34-0)	1257	18941.485	1.484	R 72 (35-0)			
	*****	ARTIFACT	1192	18955.244	5.244	P 86 (36-0)			1.095	P137 (40-0)				6.628	R131 (39-0)	1258	18941.386	1.394	R 37 (34-0)			
1173	18958.756	8.783	P 12 (34-0)	1193	18955.212	5.117	P127 (39-0)	1216	18950.930	0.931	R 90 (36-0)	1238	18946.426	6.426	R 89 (36-0)		1.363	R109 (37-0)				
	8.751	R 61 (35-0)	1194	18955.114	5.057	R146 (41-0)	1217	18950.799	0.800	P104 (37-0)			18946.245	6.243	R130 (40-0)	1259	18941.197	1.201	P130 (39-0)			
1174	18958.686	8.684	R 15 (34-0)	1195	18954.979	4.979	P 19 (34-0)		0.734	R159 (43-0)		1239	18945.997	6.002	P140 (40-0)	1260	18941.092	1.096	R101 (40-0)			
1175	18958.333	8.333	P 13 (34-0)	1196	18954.882	4.829	R 22 (34-0)		0.517	P128 (39-0)			6.203	R140 (40-0)	1261	18940.870	0.870	P131 (39-0)				
1176	18958.228	8.227	R 16 (34-0)	1197	18954.630	4.631	R 66 (35-0)	1218	18950.499	0.497	P 25 (34-0)	1240	18945.897	5.897	R 97 (36-0)	1262	18940.870	0.870	P132 (39-0)			
1177	18958.115	8.116	P 85 (36-0)	1198	18954.316	4.355	P103 (37-0)	1219	18950.379	0.379	R 68 (35-0)			5.878	P129 (39-0)	1262	18940.520	0.520	P 35 (34-0)			
1178	18957.864	7.875	P102 (37-0)		4.310	P 20 (34-0)	1220	18950.302	0.302	R 28 (34-0)	1241	18945.667	5.667	R 33 (34-0)	1263	18940.377	0.378	P 91 (36-0)				
	7.852	P 14 (34-0)	1199	18954.153	4.153	R 23 (34-0)	1221	18949.830	9.835	P145 (41-0)		18945.344			1264	18940.247	0.246	R 38 (34-0)				
1179	18957.740	7.739	R 17 (34-0)	1200	18954.153	4.153	R 23 (34-0)	1222	18949.640	9.641	P 26 (34-0)	1242	18944.979	4.979	R 92 (36-0)		18940.157					
	18957.653			1201	18953.856	3.857	R 89 (36-0)		18949.544	9.544	R147 (41-0)	1243	18944.887	4.888	P 31 (34-0)	1265	18940.019	0.019	P 70 (35-0)			
					3.619	P151 (42-0)	1223	18949.427	9.428	R 29 (34-0)		9.438	P 88 (36-0)	1244	18944.646	4.646	R 34 (34-0)	1266	18939.915	9.915	P107 (37-0)	
1180	18957.433	7.432	P 62 (35-0)		18953.697				18949.125	9.125				4.546	R 34 (34-0)		9.899	R122 (38-0)				
														4.568	P 68 (35-0)							
																	18939.815					

LINE	OBS	CM-1	CALC	ASSIGNMENT	LINE	OBS	CM-1	CALC	ASSIGNMENT	LINE	OBS	CM-1	CALC	ASSIGNMENT	LINE	OBS	CM-1	CALC	ASSIGNMENT						
1262	1890.520	0.520	P 5	(34-0)	1279	1893.616	6.616	P 41	(34-0)	1311	1892.075	8.075	P 75	(35-0)	1327	1892.021	4.020	R 50	(34-0)						
1263	1890.377	0.378	P 91	(36-0)	1280	1893.648	6.485	P131	(39-0)	1312	1892.673	7.874	P 95	(36-0)	1328	1892.815	3.815	P156	(42-0)						
1264	1890.247	0.246	R 38	(34-0)	1281	1893.391				1313	1892.651	7.655	R135	(39-0)											
	1890.157				1282	1893.225	6.224	P108	(37-0)		1892.502	7.502	P149	(41-0)	1328	18923.062	3.068	P 77	(35-0)						
1265	1890.019	0.019	P 70	(35-0)	1283	1893.903	5.950	P154	(42-0)	1314	1892.740	7.400	P 45	(34-0)		3.052	R 99	(36-0)							
1266	1893.915	9.921	P107	(37-0)		5.907	R142	(40-0)	1297	1893.065	6.064	R 76	(35-0)	1315	1892.7157	7.157	R 78	(35-0)							
	1893.915	9.899	R122	(38-0)		5.989	R 95	(36-0)	1298	18931.668	1.731	P132	(39-0)	1316	1892.7042	7.067	R151	(41-0)							
	1893.915				1284	1893.784	5.785	R 95	(36-0)		1.667	P 42	(34-0)		7.044	R125	(38-0)	1330	18922.683	2.684	R126	(38-0)			
1267	1893.915				1285	1893.650	5.697	P140	(40-0)	1299	18931.336	1.366	R124	(38-0)		7.040	R 48	(34-0)	1331	18922.548	2.548	R147	(40-0)		
	1893.915	9.350	P 36	(34-0)		5.652	R123	(38-0)		1.334	R 45	(34-0)	1317	18926.938	6.938	P133	(39-0)		2.664	R158	(42-0)				
1268	1893.178	9.178	R 7	(35-0)		5.650	P 39	(34-0)	1300	18931.050	1.051	P 94	(36-0)	1318	18926.835			1332	18922.463	2.462	R 51	(34-0)			
1269	1893.341	9.341	R 33	(34-0)	1286	18935.341			1301	18930.675	0.675	R 42	(34-0)		18926.675			1333	18922.116	2.116	R 80	(35-0)			
1270	1893.883	8.883	R 94	(36-0)		5.340	P 72	(35-0)	1302	18930.530	0.529	P 74	(35-0)		18926.382	6.384	R113	(37-0)		2.106	P134	(39-0)			
1271	18938.752	8.778	P147	(41-0)	1287	18934.864	4.864	R156	(42-0)		0.483	P141	(40-0)	1319	18926.285	6.287	R 98	(33-0)	1334	18921.538	1.537	P124	(38-0)		
	18938.752	8.748	P120	(38-0)		18934.729			1303	18930.275	0.276	P 43	(34-0)	1320	18926.285	5.915	P 46	(34-0)		1.416	P 97	(36-0)			
	18938.685					18934.604			1304	18930.190	0.217	P122	(38-0)	1321	18925.911	5.896	P123	(38-0)	1335	18921.416	1.416	P102	(38-0)		
	18938.393	8.391	R149	(41-0)	1288	18934.471	4.501	P121	(38-0)		0.182	R112	(37-0)		18925.552	5.588	P 76	(35-0)		1.340	R152	(41-0)			
1272	18938.147	8.148	P 37	(34-0)		4.468	R 75	(35-0)	1305	18929.933	9.934	R 46	(34-0)	1322	18925.552	5.588	P 76	(35-0)	1336	18921.270	1.270	P 49	(34-0)		
CALC	*****	7.972	R161	(43-0)	1289	18934.354	4.354	P 40	(34-0)		9.904	P155	(42-0)		18925.410	5.464	R 49	(34-0)	1337	18921.080	1.081	P112	(37-0)		
1273	18937.857	7.858	R 40	(34-0)	1290	18934.192	4.194	P 93	(36-0)	1306	18929.627	9.627	R 77	(35-0)	1323	18925.410	5.464	R144	(40-0)	1338	18920.873	0.873	R 52	(34-0)	
1274	18937.690	7.696	P 71	(35-0)	1291	18934.037	4.038	R 43	(34-0)	1307	18929.487	9.487	R 77	(36-0)		18925.229	5.229	P142	(40-0)	1339	18920.516	0.515	P 78	(35-0)	
	18937.690	7.672	R110	(37-0)	1292	18933.945	3.945	R111	(37-0)		18929.186	9.186	R 77	(35-0)		18925.101	5.101			1340	18920.233	0.233	R 53	(34-0)	
	18937.449	7.449				CALC	*****	3.161	P148	(41-0)	1308	18928.853	8.853	P 44	(34-0)	1324	18924.920	4.920	P163	(43-0)	1341	18919.933	0.933	P143	(40-0)
1275	18937.302	7.303	P 92	(36-0)	1293	18933.025	3.026	P 41	(34-0)		8.786	R157	(42-0)	1325	18924.656	4.662	P 96	(36-0)	1342	18919.783	0.783	R100	(36-0)		
1276	18937.217	7.219	R133	(39-0)	1294	18932.951	2.951	P 73	(35-0)	1309	18928.723	8.723	R 74	(34-0)		4.654	R 79	(35-0)	1343	18919.657	0.657	P 50	(34-0)		
1277	18936.913	6.915	P 38	(34-0)	1295	18932.750	2.750	R150	(41-0)	1310	18928.503	8.503	R 47	(34-0)	1326	18924.398	4.398	P 47	(34-0)		9.549	R 81	(35-0)		
1278	18936.840	6.840	R 74	(35-0)		2.702	R 44	(34-0)		18928.302															

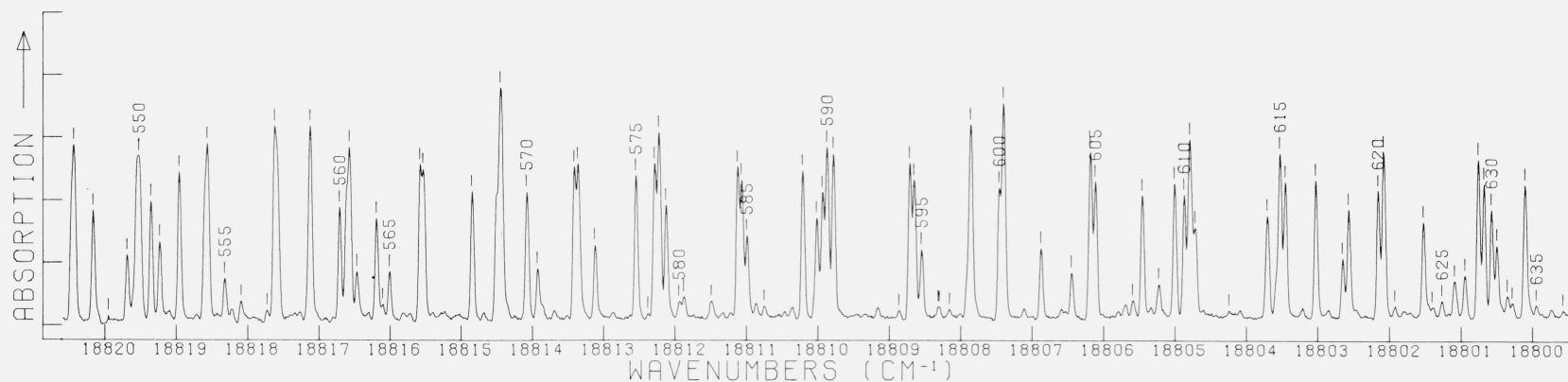


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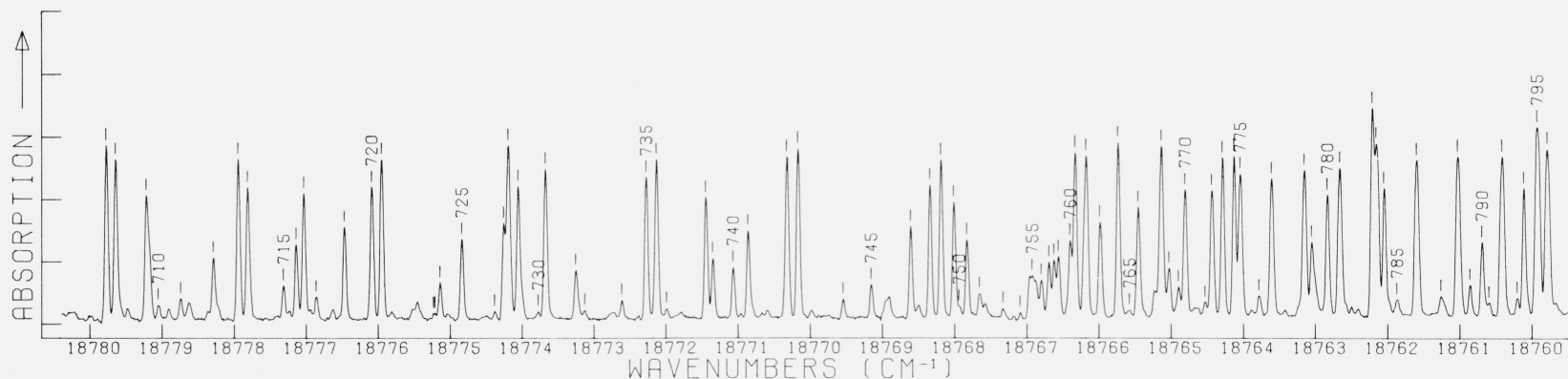
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308	18880.233		0.233	P 33 (33-0)	321	18876.365				339	18872.221		2.230	R146 (39-0)	358	18868.598		8.598	P112 (36-0)
309	18880.088		0.141	R 73 (34-0)	322	18876.167		6.166	P 72 (34-0)				2.229	R137 (38-0)				8.550	P159 (41-0)
			0.095	R 95 (35-0)				6.113	R153 (40-0)				2.211	P124 (37-0)	359	18868.361		8.360	R 78 (34-0)
			0.080	R 36 (33-0)				6.102	P151 (40-0)	340	18872.062		2.059	P 95 (35-0)	360	18867.967		7.966	P 43 (33-0)
	18879.932		0.038	R159 (42-0)	323	18876.095		6.091	P110 (36-0)				2.037	R166 (42-0)		18867.912		7.903	P125 (37-0)
			0.895	P163 (42-0)	324	18875.893		5.896	P134 (38-0)	341	18871.971		1.971	P 40 (33-0)				7.843	R161 (41-0)
310	18879.786		9.785	P109 (36-0)	325	18875.696		5.697	P 37 (33-0)	342	18871.780		1.780	R 43 (33-0)	361	18867.759		7.759	R 46 (33-0)
	18879.432				326	18875.524		5.525	R 75 (34-0)	343	18871.632		1.633	P144 (39-0)	362	18867.620		7.619	R 99 (35-0)
	18879.318							5.522	R 40 (33-0)	344	18871.447		1.446	P 74 (34-0)	363	18867.408		7.413	R138 (38-0)
311	18879.145		9.145	P 34 (33-0)	327	18875.177		5.175	P 94 (35-0)	345	18871.124		1.124	P135 (38-0)		18867.319			
312	18878.986		8.987	R 37 (33-0)		18874.638		4.640	P158 (41-0)	346	18871.060				364	18866.956		6.980	P165 (42-0)
313	18878.478		8.526	R165 (42-0)	328	18874.486		4.486	P 38 (33-0)	347	18870.785		0.789	R 98 (35-0)				6.952	R147 (39-0)
			8.478	P 71 (34-0)	329	18874.306		4.306	R 41 (33-0)				0.781	R 77 (34-0)	365	18866.583		6.597	P 76 (34-0)
314	18878.259		8.258	P 93 (35-0)	330	18874.130		4.129	R113 (36-0)	348	18870.667		0.667	P 41 (33-0)				6.582	R115 (36-0)
315	18878.026		8.027	P 35 (33-0)	331	18873.927		3.963	R160 (41-0)	349	18870.470		0.470	R 44 (33-0)				6.570	P 44 (33-0)
			7.985	R125 (37-0)				3.924	R 97 (35-0)				0.437	P152 (40-0)	366	18866.357		6.369	P145 (39-0)
316	18877.857		7.863	R 38 (33-0)	332	18873.823		3.822	P 73 (34-0)				0.427	R154 (40-0)				6.356	R 47 (33-0)
			7.850	R112 (36-0)	333	18873.716		3.715	R126 (37-0)	350	18870.374		0.373	R114 (36-0)				6.314	P136 (38-0)
			7.849	R 74 (34-0)		18873.479		3.477	P164 (42-0)	351	18869.962				367	18865.908		5.907	R 79 (34-0)
			7.468	R145 (39-0)	334	18873.243		3.244	P 39 (33-0)		18869.841				368	18865.729		5.726	P 97 (35-0)
317	18877.025		7.026	R 96 (35-0)	335	18873.170		3.169	R 76 (34-0)				9.409	R127 (37-0)		18865.424		5.500	R167 (42-0)
			7.006	R136 (38-0)	336	18873.058		3.058	R 42 (33-0)	353	18869.333		9.332	P 42 (33-0)		18865.143		5.142	P 45 (33-0)
318	18876.875		6.877	P 36 (33-0)	337	18872.857				354	18869.210				370	18865.070		5.065	R128 (37-0)
			6.858	P143 (39-0)		18872.542				355	18869.131		9.130	R 45 (33-0)	371	18864.923		4.923	R 48 (33-0)
319	18876.709		6.708	R 39 (33-0)	338	18872.363		2.362	P111 (36-0)	356	18869.039		9.038	P 75 (34-0)	372	18864.800		4.800	P113 (36-0)
320	18876.484		6.482	P123 (37-0)						357	18868.908		8.909	P 96 (35-0)	373	18864.727		4.730	P153 (40-0)
																	4.699	R155 (40-0)	

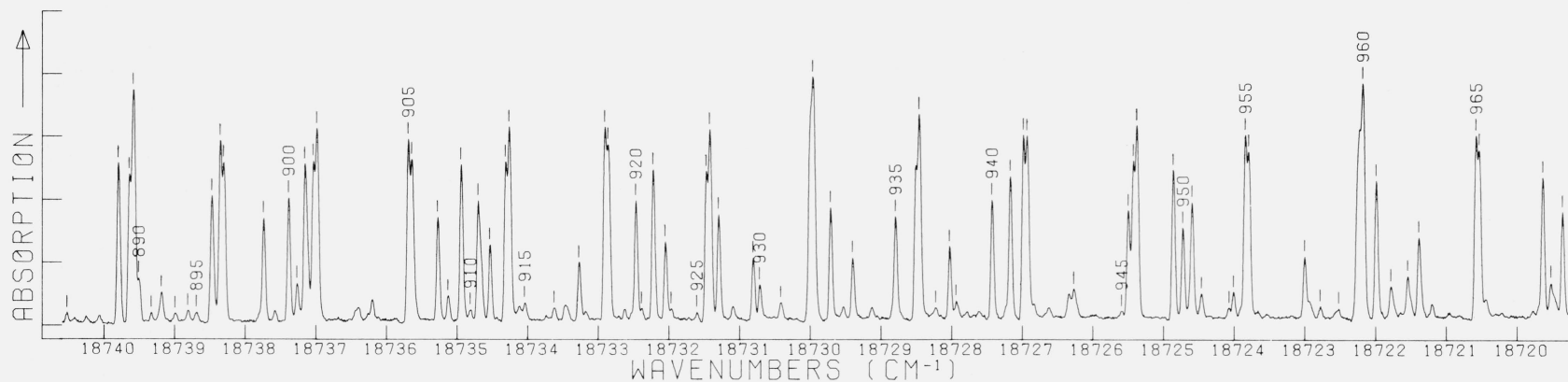


LINE	OBS	CM-1	CALC	ASSIGNMENT	LINE	OBS	CM-1	CALC	ASSIGNMENT	LINE	OBS	CM-1	CALC	ASSIGNMENT	LINE	OBS	CM-1	CALC	ASSIGNMENT					
389	18860.438		0.437	R 51 (33-0)	404	18855.773		5.772	R 83 (34-0)	419	18851.657		1.656	P139 (38-0)	452	18843.185		3.183	P 85 (34-0)					
			0.436	P166 (42-0)				5.720	P147 (39-0)		18851.392				453	18843.097		3.094	R121 (36-0)					
390	18860.092				405	18855.674		5.671	R 54 (33-0)	420	18851.276		1.278	P 82 (34-0)		18842.776		2.796	R133 (37-0)					
391	18859.260		9.259	P 99 (35-0)		18855.473		5.470	R163 (41-0)				1.266	R104 (35-0)	437	18847.105		7.105	R 59 (33-0)					
392	18859.107		9.179	P127 (37-0)		18855.309				421	18851.067		1.065	R119 (36-0)		7.097	R120 (36-0)		2.757	R143 (38-0)				
			9.123	P 49 (33-0)		18855.222				422	18850.900		0.901	P 54 (33-0)	438	18846.694		6.693	P140 (38-0)					
			9.083	P 79 (34-0)	406	18854.998		4.997	R118 (36-0)				0.876	R150 (39-0)	439	18846.622				454	18842.504		2.503	P104 (35-0)
393	18858.981		8.982	P154 (40-0)	407	18854.765		4.762	P128 (37-0)	423	18850.626		0.624	R 57 (33-0)	440	18846.552				455	18842.372		2.373	R 88 (34-0)
394	18858.884		8.928	R156 (40-0)	408	18854.606		4.604	R103 (35-0)	424	18850.510		0.510	R 85 (34-0)		18846.277				456	18841.904		1.902	P 59 (33-0)
			8.917	R168 (42-0)	409	18854.285		4.283	P 52 (33-0)	425	18850.313		0.335	P148 (39-0)	441	18846.184		5.922	P103 (35-0)	457	18841.692		1.692	P141 (38-0)
			8.894	R117 (36-0)	410	18854.022		4.020	R 55 (33-0)				0.308	P129 (37-0)		18845.920		5.914	P 84 (34-0)	458	18841.592		1.590	R 62 (33-0)
			8.879	R 52 (33-0)	411	18853.913		3.912	P 81 (34-0)	426	18850.021		0.017	P162 (41-0)	442	18845.822		5.817	P130 (37-0)	459	18841.586		1.483	R156 (40-0)
395	18858.355		8.354	R 82 (34-0)				3.847	P167 (42-0)		18849.919				443	18845.596		5.610	R170 (42-0)	460	18841.361		1.361	R159 (40-0)
	18858.175				412	18853.568				427	18849.730					18845.435		5.595	P 57 (33-0)	461	18841.279		1.290	P131 (37-0)
	18858.022				413	18853.278				428	18849.306		9.307	P102 (35-0)	444	18845.435		5.436	R151 (39-0)	462	18841.049		1.048	R107 (35-0)
396	18857.910		7.909	R102 (35-0)	414	18853.163		3.193	P116 (36-0)	429	18849.258		9.254	P117 (36-0)	445	18845.297		5.298	R 60 (33-0)		18840.917			
397	18857.672		7.667	R140 (38-0)				3.191	P155 (40-0)				9.216	R164 (41-0)		18845.118		5.117	R 87 (34-0)		18840.773			
398	18857.541		7.541	P 50 (33-0)				3.157	R 84 (34-0)	430	18849.164		9.163	P 55 (33-0)	446	18845.118		5.280	P118 (36-0)		18840.695			
								3.115	R157 (40-0)	431	18848.883		8.880	R 58 (33-0)		18844.909		4.910	P149 (39-0)		18840.615			
399	18857.397		7.290	R 53 (33-0)		18852.806				432	18848.794				447	18844.490		4.488	R106 (35-0)	0.529	P169 (42-0)			
400	18857.099		7.097	P115 (36-0)		18852.734		2.735	R141 (38-0)	433	18848.614		8.612	P 83 (34-0)	448	18844.260				0.419	P 86 (34-0)			
	18856.577		6.580	P138 (38-0)	415	18852.610		2.658	P101 (35-0)		18848.427				449	18844.026				0.009	P 60 (33-0)			
401	18856.515		6.514	P 80 (34-0)				2.607	P 53 (33-0)	434	18847.894		7.894	R105 (35-0)	450	18843.765		3.764	P 58 (33-0)	9.955	R152 (39-0)			
402	18856.271		6.275	R149 (39-0)		18852.338		2.338	R 56 (33-0)	435	18847.832		7.830	R 86 (34-0)		18843.462		3.460	R 61 (33-0)		18839.877			
			6.269	R130 (37-0)				2.287	R169 (42-0)		18847.767		7.765	R142 (38-0)	463	18839.692		9.690	R 63 (33-0)		18839.596		9.595	R 89 (34-0)
			6.239	P161 (41-0)	416	18852.188				436	18847.396		7.395	P 56 (33-0)	464	18839.596		9.595	R 89 (34-0)		18839.447		9.445	P150 (39-0)
403	18855.930		5.975	P100 (35-0)	417	18852.188							7.358	P156 (40-0)	465	18839.447		9.445	P150 (39-0)					
			5.927	P 51 (33-0)	418	18851.815		1.815	R131 (37-0)															



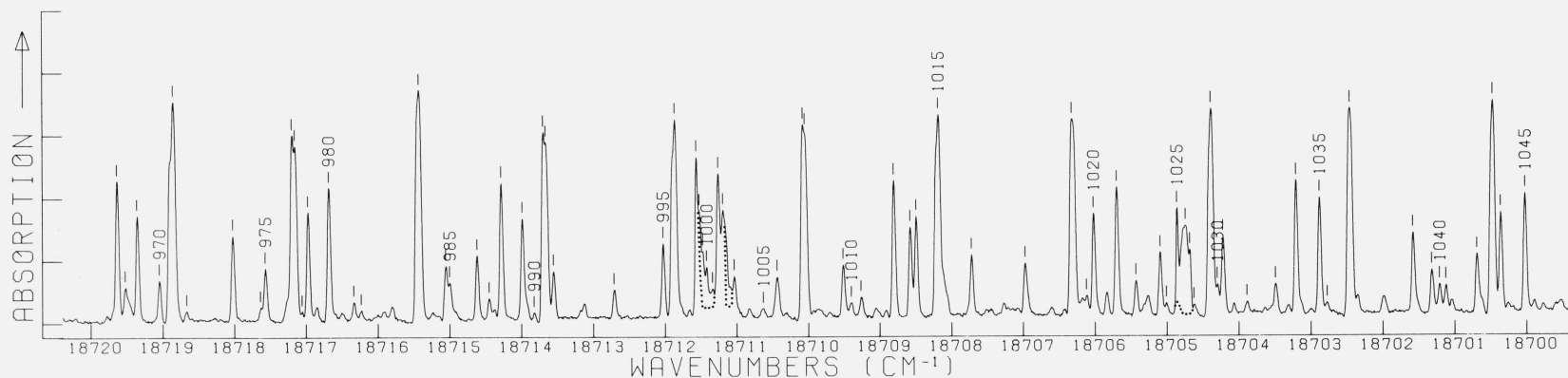
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546	18820.440		0.478	P 28 (32-0)	561	18816.576		6.625	P 32 (32-0)	578	18812.230		2.232	R 39 (32-0)	597	18808.301		597	18808.301
			0.436	R 31 (32-0)				6.576	R 35 (32-0)				2.214	P 126 (36-0)	598	18808.159			
547	18820.168		0.201	P172 (42-0)	562	18816.472		6.472	P125 (36-0)	579	18812.129		2.127	R 76 (33-0)	599	18807.865		599	18807.865
			0.165	P 93 (34-0)		18816.313				580	18811.945		1.936	R157 (39-0)		7.065	P127 (36-0)		
548	18819.954				563	18816.197		6.196	R 97 (34-0)	581	18811.879		1.883	R149 (38-0)		7.856	P 97 (33-0)		
549	18819.692		9.690	R113 (35-0)	564	18816.108		6.106	P146 (38-0)		18811.754		1.754	P158 (41-0)	600	18807.465		600	18807.465
550	18819.527		9.599	R138 (35-0)	565	18816.012		6.010	R114 (35-0)	562	18811.493		1.512	P155 (39-0)	601	18807.407		601	18807.407
			9.510	P 21 (32-0)		18815.818						1.472	P162 (40-0)		7.410	P 40 (32-0)			
			9.516	R 32 (32-0)		18815.732					18811.343					7.402	R 43 (32-0)		
551	18819.358		9.358	P 70 (33-0)	566	18815.581		5.587	P 33 (32-0)		18811.228		1.222	R164 (40-0)	602	18806.880		6.880	R100 (34-0)
552	18819.235		9.236	R 96 (34-0)	567	18815.540		5.535	R 36 (32-0)	583	18811.127		1.130	P 37 (32-0)		6.800	R150 (38-0)		
	18819.105				568	18814.852		4.852	P 72 (33-0)	584	18811.071		1.070	R 40 (32-0)	603	18806.452		6.450	P114 (35-0)
553	18818.961		8.960	R 73 (33-0)				4.846	R139 (37-0)	585	18810.996		0.995	P 96 (34-0)		6.404	P174 (42-0)		
554	18818.570		8.612	P 30 (32-0)		18814.690				586	18810.872		0.872	P147 (38-0)	604	18806.189		6.208	R158 (39-0)
			8.566	R 33 (32-0)	569	18814.451		4.518	P 34 (32-0)		18810.753		0.749	R170 (41-0)	605	18806.119		6.190	P 41 (32-0)
			8.427	R174 (42-0)						587	18810.366					5.813	R144 (32-0)		
555	18818.327		8.326	R127 (36-0)				4.436	R 75 (33-0)	588	18810.217		0.220	P 74 (33-0)		6.105	P156 (39-0)		
	18818.228		8.243	P167 (41-0)	570	18814.083		4.085	P 95 (34-0)				0.209	P113 (35-0)	606	18805.594		5.600	P148 (38-0)
556	18818.093		8.100	P136 (37-0)				4.073	R128 (36-0)	588	18810.019		0.056	R140 (37-0)	607	18805.463		5.462	P 76 (33-0)
557	18817.729				571	18813.934		3.933	P112 (35-0)				0.018	R 99 (34-0)		5.459	R130 (36-0)		
558	18817.624		7.634	P 31 (32-0)		18813.877				589	18809.938		9.941	P 38 (32-0)		5.341	P163 (40-0)		
			7.623	R111 (35-0)		18813.704				590	18809.876		9.878	R 41 (32-0)	608	18805.230		5.229	R141 (37-0)
			7.622	R155 (39-0)	572	18813.416		3.419	P 35 (32-0)	591	18809.787		9.786	R 77 (33-0)		5.220	P169 (41-0)		
			7.586	R 34 (32-0)	573	18813.364		3.363	R 38 (32-0)				9.784	R129 (36-0)	609	18805.011		5.065	R165 (40-0)
			7.560	P161 (40-0)				3.350	P173 (42-0)	592	18809.171		8.721	P 39 (32-0)		5.010	R 79 (33-0)		
18817.339			7.337	R163 (40-0)				3.331	P173 (42-0)	592	18808.867				610	18804.878		4.879	P 42 (32-0)
18817.273			7.273	R169 (41-0)	574	18813.125		3.124	R 98 (34-0)	593	18808.718		8.721	P 39 (32-0)	611	18804.801		4.806	R 45 (32-0)
18817.128			7.180	P154 (39-0)		18812.877				594	18808.656		8.655	R 42 (32-0)		4.766	R117 (35-0)		
			7.141	94 (33-0)	575	18812.552		2.551	P 73 (33-0)	595	18808.554		8.563	P138 (37-0)	612	18804.721		4.718	P 98 (34-0)
			7.127	R144 (39-0)	576	18812.366						8.548	R116 (35-0)	613	18804.446				
			7.120	P 71 (33-0)	577	18812.290		2.297	R115 (35-0)	596	18808.319					18804.179		4.178	R171 (41-0)
560	18816.715		6.714	R 74 (33-0)				2.290	P 36 (32-0)							18804.096			
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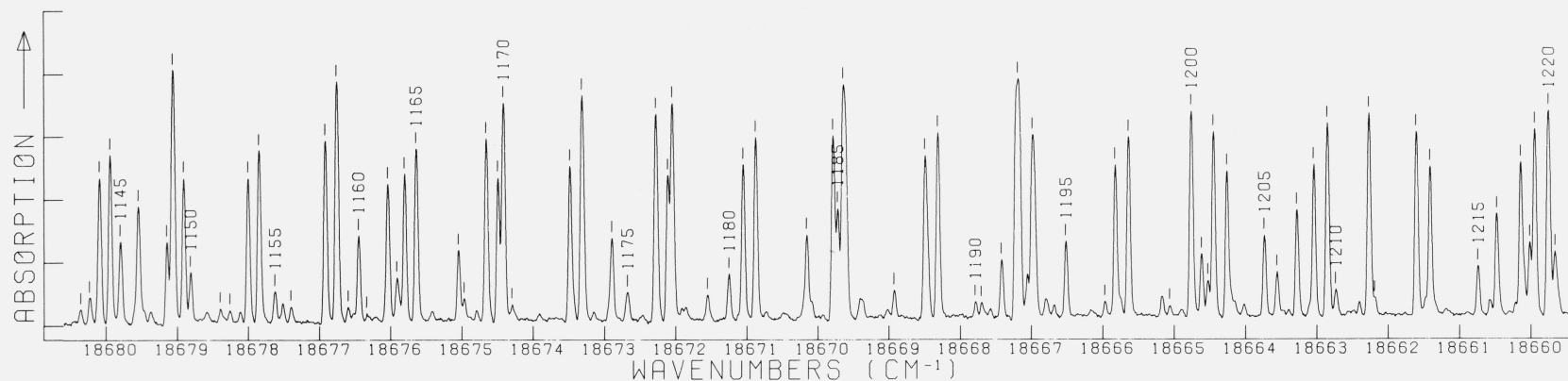


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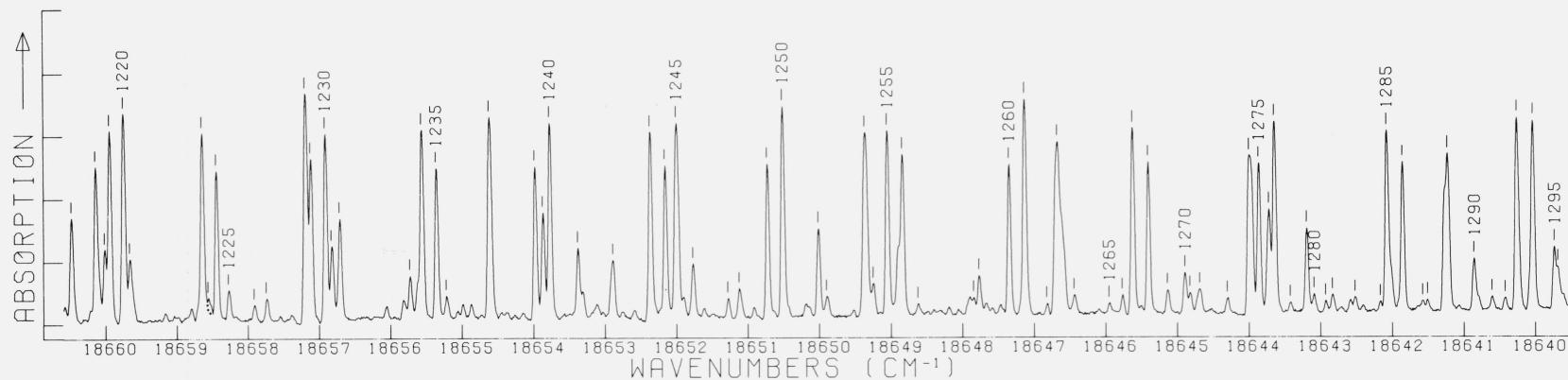
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886	18740.523				904	18736.989	6.989	P 43 (31-0)		920	18732.471	2.470	P 80 (32-0)		937	18728.226	8.234	R156 (37-0)	
	18740.429	0.430	R169 (39-0)			18736.410				921	18732.389				938	18728.030	8.031	R106 (33-0)	
	18740.263	0.265	P167 (39-0)			18736.215	6.211	R145 (36-0)		922	18732.226	2.234	P153 (37-0)		939	18727.937			
	18740.078	0.081	R162 (38-0)		905	18735.693	5.691	R 47 (31-0)				2.226	R 83 (32-0)			18727.802	7.802	P169 (39-0)	
887	18739.798	9.798	P 77 (32-0)		906	18735.643	5.642	P 44 (31-0)		923	18732.053	2.054	P102 (33-0)			18727.622	7.619	P162 (38-0)	
888	18739.642	9.641	R 44 (31-0)		907	18735.277	5.277	P101 (33-0)		924	18731.969				940	18727.429	7.430	P 82 (32-0)	
889	18739.585	9.593	P 41 (31-0)		908	18735.130	5.131	R134 (35-0)		925	18731.608				941	18727.172	7.171	R 85 (32-0)	
		9.574	R 80 (32-0)		909	18734.945	4.944	P 79 (32-0)		926	18731.472	1.471	R 50 (31-0)		942	18726.985	6.983	R 53 (31-0)	
890	18739.509	9.509	R133 (35-0)		910	18734.815				927	18731.422	1.423	P 47 (31-0)		943	18726.934	6.936	P 50 (31-0)	
891	18739.333				911	18734.705	4.706	R 82 (32-0)		928	18731.300	1.301	R105 (33-0)				6.925	P120 (34-0)	
892	18739.189	9.240	P160 (38-0)				4.666	P118 (34-0)				1.300	R146 (36-0)			18726.845	6.839	P154 (37-0)	
		9.196	P142 (36-0)		912	18734.538	4.539	R104 (33-0)			18731.107					18726.632			
893	18738.994	9.002	R154 (37-0)		913	18734.316	4.323	P143 (36-0)		929	18730.811	0.812	P119 (34-0)			18726.347	6.351	R147 (36-0)	
894	18738.814						4.314	R 48 (31-0)		930	18730.718	0.719	R135 (35-0)		944	18726.271	6.270	R136 (35-0)	
895	18738.694				914	18734.264	4.275	R163 (38-0)		931	18730.419				945	18725.594			
896	18738.474	8.485	P117 (34-0)				4.266	P 45 (31-0)		932	18729.964	0.005	R 51 (31-0)		946	18725.502	5.509	P104 (33-0)	
		8.468	P100 (33-0)			18734.132						9.965	P 81 (32-0)				5.493	R123 (34-0)	
897	18738.356	8.354	R 45 (31-0)			18734.044	4.055	P168 (39-0)				9.957	P 48 (31-0)		947	18725.429	5.428	R 54 (31-0)	
898	18738.307	8.306	P 42 (31-0)		915	18733.755				933	18729.715	9.714	R 84 (32-0)		948	18725.380	5.381	P 51 (31-0)	
899	18737.742	7.744	R103 (33-0)		916	18733.627	3.638	R155 (37-0)			18729.545				949	18724.864	4.863	P 83 (32-0)	
	18737.591	7.589	P152 (37-0)			18733.475	3.450	P161 (38-0)		934	18729.403	9.413	P144 (36-0)		950	18724.727	4.729	R107 (33-0)	
900	18737.388	7.387	P 78 (32-0)		917	18733.275	3.277	R121 (34-0)				9.402	R122 (34-0)		951	18724.598	4.598	R 86 (32-0)	
901	18737.269	7.269	P131 (35-0)			18733.182					18729.139				952	18724.464	4.466	P145 (36-0)	
902	18737.155	7.156	R 81 (32-0)		918	18732.907	2.908	R 49 (31-0)		935	18728.797	8.798	P103 (33-0)		953	18724.075			
		7.118	R120 (34-0)		919	18732.863	2.886	P132 (35-0)		936	18728.461	8.509	R 52 (31-0)		954	18724.013	4.013	P134 (35-0)	
903	18737.037	7.037	R 46 (31-0)				2.859	P 46 (31-0)				8.467	P133 (35-0)		955	18723.843	3.842	R 55 (31-0)	
						18732.639						8.462	P 49 (31-0)						
												8.427	R164 (38-0)						



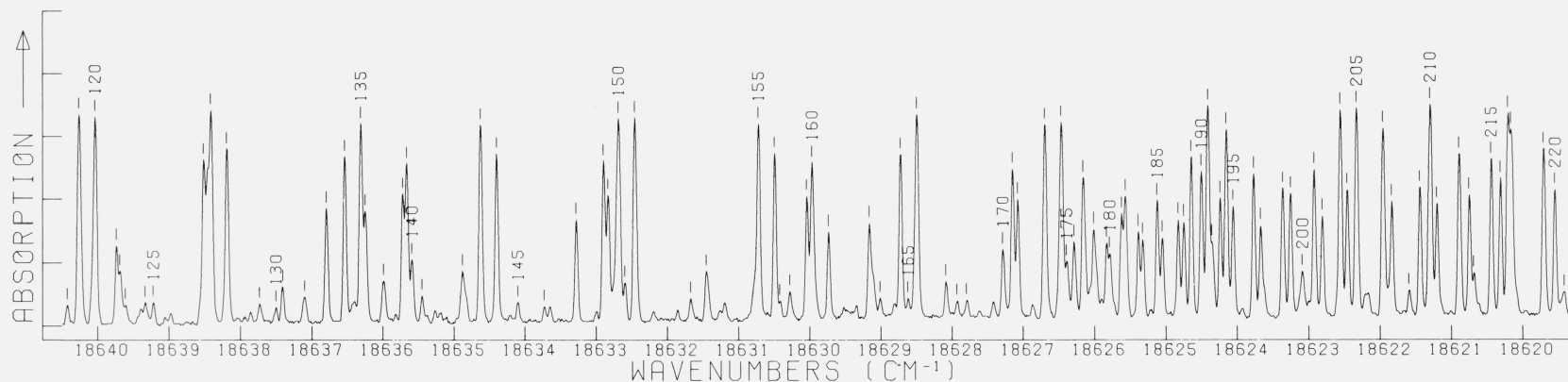
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967	18719.636	9.636	P 85 (32-0)		984	18715.167	5.168	P171 (39-0)		1004	18711.036	1.038	P124 (34-0)		1019	18706.123	6.026	R160 (37-0)	
968	18719.521	9.524	P135 (35-0)		984	18715.058	5.060	P123 (34-0)		1005	18710.832	0.635	R167 (38-0)		1020	18706.025	6.024	P 90 (32-0)	
		9.482	P146 (36-0)		984	18715.003	5.000	P136 (35-0)		1006	18710.435	0.439	P137 (35-0)		1021	18705.848	5.848	P138 (35-0)	
969	18719.357	9.356	R 88 (32-0)		986	18714.623	4.625	R110 (33-0)				0.423	P 63 (31-0)		1022	18705.478	5.328	P 19 (37-2)	
970	18719.049	9.049	P122 (34-0)		987	18714.454	4.451	P147 (36-0)				0.077	R 63 (31-0)		1023	18705.097	5.099	P110 (33-0)	
971	18718.856	8.905	R 58 (31-0)		987	18714.389	4.389	P 60 (31-0)		1007	18710.076	0.076	P165 (38-0)		1024	18704.872	4.873	P158 (37-0)	
		8.861	P 55 (31-0)		988	18714.285	4.285	R 87 (32-0)		1008	18710.049	0.038	P 60 (31-0)		1025	18704.864	*****	ARTIFACT	
		8.836	P106 (33-0)		989	18713.990	3.989	R 90 (32-0)		1009	18709.513	9.515	R127 (34-0)		1026	18704.744	*****	ARTIFACT	
					990	18713.827				1010	18709.399	9.403	P148 (36-0)		1027	18704.684	*****	ARTIFACT	
972	18718.665				991	18713.698	3.698	R 61 (31-0)		1011	18709.261	9.261	P129 (34-0)		1028	18704.624	4.633	P 20 (37-2)	
973	18718.024	8.026	R109 (33-0)		992	18713.663	3.665	P 58 (31-0)		1012	18709.010	9.012	R 22 (37-0)		1029	18704.389	4.385	P 63 (31-0)	
974	18717.636	7.572	R125 (34-0)		993	18713.557	3.561	R126 (34-0)		1013	18708.924	8.909	P 61 (31-0)		1030	18704.302	4.308	P149 (36-0)	
975	18717.571	7.247	R133 (35-0)		994	18713.137				1014	18708.810	8.809	P A9 (32-0)		1031	18704.226	4.227	R113 (33-0)	
976	18717.277	7.267	R139 (35-0)		995	18712.712	2.711	R139 (35-0)		1015	18708.580	8.582	P109 (33-0)		1032	18703.889	3.888	P166 (38-0)	
977	18717.200	7.199	R 59 (31-0)		996	18712.030	2.032	P108 (33-0)		1016	18708.497	8.498	R 92 (32-0)		1033	18703.800	3.800	P166 (38-0)	
978	18717.158	7.156	P 56 (31-0)			18711.863	1.903	R 62 (31-0)		1017	18708.186	8.221	R 64 (31-0)		1034	18703.494	3.559	R 24 (37-2)	
979	18716.977	6.976	P 86 (32-0)				1.862	P 59 (31-0)				8.184	P 61 (31-0)		1035	18703.401	3.407	R141 (35-0)	
	18716.866					18711.790	1.787	R159 (37-0)				8.125	R112 (33-0)		1036	18703.327	3.326	P 21 (37-2)	
980	18716.604	6.688	R 89 (32-0)		997	18711.565	1.563	P 88 (32-0)		1018	18708.125	8.125	P125 (34-0)		1037	18703.246	3.246	P166 (38-0)	
	18716.604	6.607	R166 (38-0)		998	18711.523	*****	ARTIFACT			18707.284				1038	18703.166	3.166	P166 (38-0)	
	18716.508				999	18711.475	*****	ARTIFACT		1017	18707.977	6.981	P125 (34-0)		1039	18703.081	3.08		
981	18716.338	6.342	R149 (36-0)		1000	18711.419	*****	ARTIFACT				6.947	R 19 (37-2)		1040	18703.000	3.000		
982	18716.236					18711.348					18706.622				1041	18702.920	2.927	R113 (33-0)	
	18715.929	5.934	P156 (37-0)		1001	18711.340	*****	ARTIFACT			18706.437				1042	18702.840	2.846	P 21 (37-2)	
	18715.815	5.835	P164 (38-0)		1002	18711.260	1.262	R150 (36-0)		1018	18706.327	6.335	R 65 (31-0)		1043	18702.768	2.768	P166 (38-0)	
983	18715.430	5.464	R 60 (31-0)				1.259	R 91 (32-0)				6.335	R 20 (37-2)		1044	18702.680	2.689	P166 (38-0)	
		5.450	P107 (33-0)		1003	18711.193	1.192	R111 (33-0)				6.299	P 62 (31-0)		1045	18702.600	2.605	P166 (38-0)	
		5.421	P 57 (31-0)												1046	18702.536	2.536	P166 (38-0)	
															1047	18702.464	2.464	P166 (38-0)	
															1048	18702.392	2.392	P166 (38-0)	
															1049	18702.320	2.320	P166 (38-0)	
															1050	18702.248	2.248	P166 (38-0)	
															1051	18702.176	2.176	P166 (38-0)	
															1052	18702.104	2.104	P166 (38-0)	
															1053	18702.032	2.032	P166 (38-0)	
															1054	18701.960	1.960	P166 (38-0)	
															1055	18701.888	1.888	P166 (38-0)	
															1056	18701.816	1.816	P166 (38-0)	
															1057	18701.744	1.744	P166 (38-0)	
															1058	18701.672	1.672	P166 (38-0)	
															1059	18701.600	1.600	P166 (38-0)	
															1060	18701.528	1.528	P166 (38-0)	
															1061	18701.456	1.456	P166 (38-0)	
															1062	18701.384	1.384	P166 (38-0)	
															1063	18701.312	1.312	P166 (38-0)	
															1064	18701.240	1.240	P166 (38-0)	
															1065	18701.168	1.168	P166 (38-0)	
															1066	18701.096	1.096	P166 (38-0)	
															1067	18701.024	1.024	P166 (38-0)	
															1068	18700.952	0.952	P166 (38-0)	
															1069	18700.880	0.880	P166 (38-0)	
															1070	18700.808	0.808	P166 (38-0)	
															1071	18700.736	0.736	P166 (38-0)	
															1072	18700.664	0.664	P166 (38-0)	
															1073	18700.592	0.592	P166 (38-0)	
															1074	18700.520	0.520	P166 (38-0)	
															1075	18700.448	0.448	P166 (38-0)	
															1076	18700.376	0.376	P166 (38-0)	
															1077	18700.304	0.304	P166 (38-0)	
															1078	18700.232	0.232	P166 (38-0)	
															1079	18700.160	0.160	P166 (38-0)	
															1080	18700.088	0.088	P166 (38-0)	
															1081	18700.016	0.016	P166 (38-0)	
															1082	18699.944	0.944	P166 (38-0)	
															1083	18699.872	0.872	P166 (38-0)	
															1084	18699.800	0.800	P166 (38-0)	
															1085	18699.728	0.728	P166 (38-0)	
															1086	18699.656	0.656	P166 (38-0)	
															1087	18699.584	0.584	P166 (38-0)	
															1088	18699.512	0.512	P166 (38-0)	
															1089	18699.440	0.440	P166 (38-0)	
															1090	18699.368	0.368	P166 (38-0)	
															1091	18699.296	0.296	P166 (38-0)	
															1092	18699.224	0.224	P166 (38-0)	
															1093	18699.152	0.152	P166 (38-0)	
															1094	18699.080	0.080	P166 (38-0)	
															1095	18699.008	0.008	P166 (38-0)	
															1096	18698.936	0.936	P166 (38-0)	
															1097	18698.864	0.864	P166 (38-0)	
															1098	18698.792	0.792	P166 (38-0)	
															1099	18698.720	0.720	P166 (38-0)	
															1100	18698.648	0.648	P166 (38-0)	
															1101	18698.576	0.576	P166 (38-0)	
															1102	18698.504	0.504	P166 (38-0)	
															1103	18698.432	0.432	P166 (38-0)	
															1104	18698.360	0.360	P166 (38-0)	
															1105	18698.288	0.288	P166 (38-0)	
															1106	18698.216	0.216	P166 (38-0)	
															1107	18698.144	0.144	P166 (38-0)	
															1108	18698.072	0.072	P166 (38-0)	
															1109	18697.99			



LINE	OBS	CM-1	CALC	ASSIGNMENT	LINE	OBS	CM-1	CALC	ASSIGNMENT	LINE	OBS	CM-1	CALC	ASSIGNMENT	LINE	OBS	CM-1	CALC	ASSIGNMENT	
1141	18680.358		0.368	R 45 (37-2)	1159	18676.598		6.605	P 45 (37-2)						1190	18667.794		7.791	P146 (35-0)	
1142	18680.234		0.233	R134 (34-0)		18676.529		6.533	P163 (37-0)	1176	18672.283		2.286	R 43 (30-0)	1191	18667.706		7.707	R 53 (37-2)	
1143	18680.094		0.149	R172 (38-0)		18676.452		6.453	P100 (32-0)				2.278	P 119 (33-0)		7.659	R174 (38-0)	1206	18663.562	
			0.125	R156 (36-0)	1161	18676.336				1177	18672.114		2.115	P 40 (30-0)		7.590	P156 (36-0)		7.590	
			0.093	R 36 (30-0)	1162	18676.036		6.056	P118 (33-0)				2.055	P 78 (31-0)	1192	18667.425		7.426	R123 (33-0)	
1144	18679.946		9.946	P 33 (30-0)		18675.913		6.941	R103 (32-0)				2.053	R 81 (31-0)	1193	18667.190		7.230	P 80 (31-0)	
1145	18679.802		9.802	R146 (35-0)	1163			5.911	R135 (34-0)				2.024	R166 (37-0)		7.222	P 80 (31-0)	1209	18662.857	
								5.868	R 48 (37-2)							7.183	R 47 (30-0)		7.183	
1146	18679.550		9.603	P 43 (37-2)	1164	18675.807		5.807	R 40 (30-0)				1.859	P 48 (37-2)		7.164	R137 (34-0)	1210	18662.382	
			9.551	P 99 (32-0)	1165	18675.565		5.646	P 37 (30-0)	1179	18671.552		1.555	R136 (34-0)	CALC	*****	7.051	P172 (38-0)	1211	18662.273
			9.497	P170 (38-0)		18675.430				1180	18671.254		1.255	R122 (33-0)	1194	18666.988		7.000	P 44 (30-0)	
18679.484					1166	18675.050		5.056	P 46 (37-2)				1.071	R 51 (37-0)		6.967	P103 (32-0)	1212	18662.192	
18679.382								5.051	R121 (33-0)				1.054	R 44 (30-0)		6.817	P 51 (37-2)	1213	18661.611	
1147	18679.148		9.149	R102 (32-0)		18674.969		4.972	R147 (35-0)	1182	18670.880		0.880	P 41 (30-0)		18666.807		6.807	P104 (32-0)	
1148	18679.065		9.072	R 78 (31-0)	1167			4.799	R157 (35-0)				0.746	P164 (37-0)	1195	18666.522		6.522	R106 (32-0)	
						18674.799		4.799	R157 (35-0)		18670.738					18666.178		6.183	R167 (37-0)	
					1168	18674.662		4.662	R 41 (30-0)	1183	18670.160		0.212	P 49 (37-2)	1196	18665.975		5.975	R 54 (37-2)	
1149	18678.914		8.915	P 34 (30-0)	1169	18674.497		4.498	R 38 (30-0)				0.161	P102 (32-0)	1197	18665.833		5.834	P 48 (30-0)	
			8.901	R 46 (37-2)	1170	18674.421		4.423	R 80 (31-0)		18670.098		0.091	R148 (35-0)	1198	18665.647		5.648	P 45 (30-0)	
1150	18678.814		8.814	R120 (33-0)				4.422	P 77 (31-0)		18669.792		9.793	R 45 (30-0)		18665.177		5.174	R149 (35-0)	
18678.588					1171	18674.299		4.302	R 49 (37-2)	1184					1199	18665.065		5.065	P 52 (37-2)	
1151	18678.396					18673.922		3.925	R173 (38-0)	1185	18669.727		9.728	R105 (32-0)		18664.907		4.907	P 49 (30-0)	
1152	18678.259		8.269	P154 (36-0)	1172	18673.487		3.488	R 42 (30-0)	1186	18669.646		9.658	P 31 (30-0)		18664.765		4.765	R 49 (30-0)	
18678.160						18673.472		3.472	R 42 (30-0)				9.616	R 42 (30-0)	1200			4.772	P 81 (31-0)	
1153	18678.007		8.008	R 34 (37-2)	1173	18673.318		3.363	P101 (32-0)				9.616	R 42 (30-0)		4.760	R 44 (31-0)	1217	18660.125	
1154	18677.853		7.854	P 35 (30-0)				3.321	P 39 (30-0)		18669.410		9.435	R158 (36-0)	1201	18664.620		4.623	P121 (33-0)	
			7.825	R165 (37-0)				3.298	P133 (34-0)				9.405	R 52 (37-2)	1202	18664.531		4.534	P135 (34-0)	
1155	18677.625		7.629	P132 (34-0)				3.295	P171 (38-0)		18669.031				1203	18664.454		4.456	R 49 (30-0)	
18677.524			7.520	P144 (35-0)		18673.157				1187	18668.932		8.933	P134 (34-0)	1204	18664.266		4.267	P 46 (30-0)	
1156	18677.399		7.401	R 47 (37-2)	1174	18672.898		2.940	R155 (36-0)	1188	18668.500		8.531	P 50 (37-2)		18664.217		4.210	R 55 (37-2)	
1157	18676.922		6.922	R 39 (30-0)				2.940	P104 (32-0)				8.502	R 46 (30-0)		18664.169				
1158	18676.761		6.761	P 36 (30-0)	1175	18672.679		2.703	R 50 (32-0)				8.467	P120		18664.029		4.033	R159 (36-0)	
			6.763	R 79 (31-0)				2.674	P145 (35-0)	1189	18668.322		8.322	P 43 (30-0)						
			6.758	P 76 (31-0)															9.668	
																			9.629	

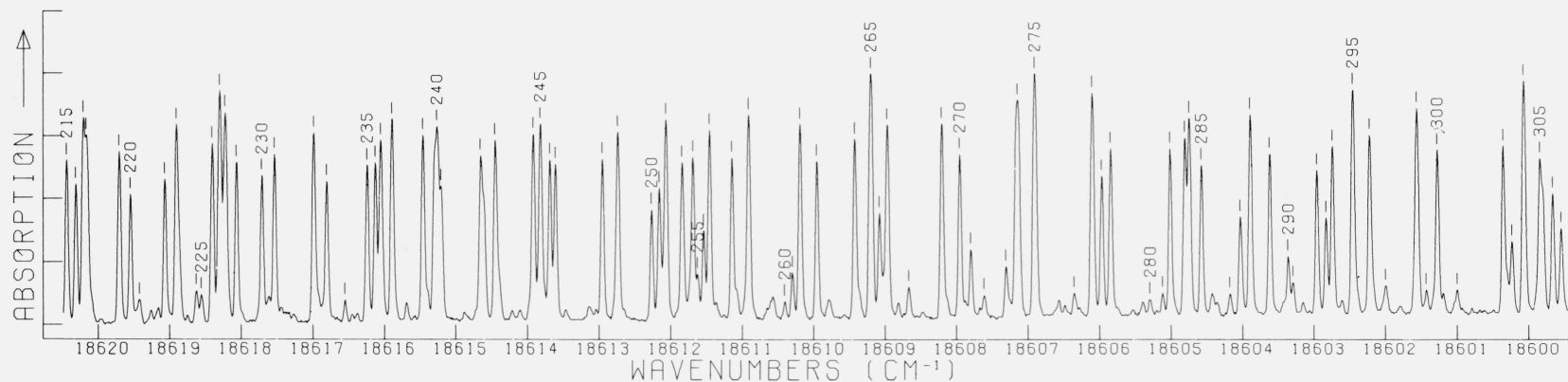


LINE	OBS CM-1	CALC	ASSIGNMENT	LINE	OBS CM-1	CALC	ASSIGNMENT	LINE	OBS CM-1	CALC	ASSIGNMENT	LINE	OBS CM-1	CALC	ASSIGNMENT
1216	18660.483	0.486	P105 (32-0)	1234	18655.570	5.571	R 55 (30-0)	1246	18651.906	1.911	P 59 (37-2)	1276	18643.727	3.750	R129 (33-0)
	18660.300	0.302	R168 (37-0)	1235	18655.366	5.367	P 52 (30-0)		18651.773	1.810	P 14 (36-2)		18643.425	3.425	P110 (32-0)
	18660.220	0.221	R150 (35-0)	1236	18655.226	5.231	R151 (35-0)		18651.624	1.776	R127 (33-0)	1277	18643.648	3.659	P 63 (37-2)
1217	18660.145	0.145	R 52 (30-0)		18655.074			1259	18647.776	7.779	R128 (33-0)		18643.197	3.426	P 26 (36-2)
		0.100	P136 (34-0)		18655.000	4.998	R176 (38-0)		18647.679			1281	18642.931		R113 (32-0)
1218	18660.017	0.020	R108 (32-0)		18654.883	4.885	R 60 (37-2)	1247	18651.284	1.287	P 15 (36-2)	1278	18643.425		P 59 (30-0)
1219	18659.948	9.949	P 49 (30-0)	1237	18654.622	4.637	P 85 (31-0)	1248	18651.125	1.128	P138 (34-0)	1280	18643.092	3.090	R 29 (36-2)
1220	18659.755	9.765	P 83 (31-0)		18654.622	4.609	R 88 (31-0)		18650.921	1.086	R 18 (36-2)	1281	18642.931		
	18659.746	9.746	R 86 (31-0)	CALC	*****	4.438	P174 (38-0)		18650.921	0.922	R 62 (37-2)	1282	18642.835	2.836	P151 (35-0)
1221	18659.663	9.668	R125 (33-0)		18654.379	4.380	R169 (37-0)	1249	18650.732	0.733	R 58 (30-0)		18642.711		
	18659.629	9.629	P 55 (37-2)		18654.276	4.271	P 8 (36-2)		18650.732	0.733	P 16 (36-2)		18642.587	2.594	R 66 (37-2)
	18659.167				18654.157	4.153	R 11 (36-2)	1250	18650.520	0.525	P108 (32-0)	1283	18642.520	2.519	P 27 (36-2)
	18659.043				18653.986	3.988	R 56 (30-0)		18650.520	0.522	P 55 (30-0)		18642.411	2.415	R171 (37-0)
	18658.992					3.941	P 9 (36-2)		18650.199	0.520	R 19 (36-2)	1284	18642.168	2.171	R 30 (36-2)
	18658.804								18650.154	0.204	R152 (35-0)		18642.168	2.166	R178 (38-0)
1222	18658.648	8.715	R 58 (37-2)	1239	18653.876	3.890	P 58 (37-2)		18650.154	0.146	P 17 (36-2)		18642.078	2.081	R 63 (30-0)
		8.650	R 53 (30-0)			3.877	P107 (32-0)	1251	18650.020	0.025	R111 (32-0)		18642.039	2.039	R163 (36-0)
		8.592	R160 (36-0)	1240	18653.780	3.811	R 12 (36-2)	1252	18649.903	9.922	R 20 (36-2)		18642.017	2.017	P140 (34-0)
						3.782	R140 (34-0)			9.898	P 60 (37-2)	1264	18646.443	6.448	R 25 (36-2)
1223	18658.562	*****	ARTIFACT			3.781	P 53 (30-0)		18649.530	9.528	P 18 (36-2)	1265	18645.957	5.955	P 23 (36-2)
1224	18658.449	8.451	P 50 (30-0)		18653.585	3.579	P 10 (36-2)		18649.369	9.386	P 87 (31-0)	1266	18645.771	5.776	P160 (36-0)
1225	18658.277	8.278	R139 (34-0)	1241	18653.385	3.437	R 13 (36-2)	1253	18649.251	9.249	R 90 (31-0)		18645.628	5.772	P 62 (37-2)
1226	18657.916	7.918	P148 (35-0)		18653.322	3.389	R110 (32-0)			9.291	R 21 (36-2)	1267	18645.628	5.657	R 26 (36-2)
1227	18657.746	7.749	P 56 (37-2)		18653.118			1254	18649.251	9.251	R141 (34-0)		18645.411	5.630	P 61 (30-0)
	18657.567					3.184	P 11 (36-2)			9.061	R 59 (30-0)	1268	18645.411	5.413	P 58 (30-0)
	18657.397					3.147	P167 (37-0)	1255	18649.059	9.059	P125 (33-0)	1269	18645.139	5.144	P 24 (36-2)
1228	18657.199	7.216	P 84 (31-0)		18653.033	3.113	R161 (36-0)	1256	18648.848	8.848	R 63 (37-2)		18644.900	4.905	P126 (33-0)
		7.197	P106 (32-0)		18652.897	3.031	R 14 (36-2)			8.890	P 19 (36-2)	1271	18644.827	4.833	R 27 (36-2)
		7.193	R 87 (31-0)	1242	18652.897	2.927	P149 (35-0)		18648.626	8.628	R 22 (36-2)	1272	18644.691	4.726	P 65 (37-2)
		7.125	R 54 (30-0)			2.920	R 61 (37-2)	1257	18648.496	8.496	R177 (38-0)		18644.304	4.301	P 25 (36-2)
1230	18656.922	6.923	P 51 (30-0)			2.892	P124 (33-0)		18648.411	8.418	R170 (37-0)	1274	18643.999	4.013	P 89 (31-0)
1231	18656.831	6.835	P123 (33-0)		18652.764	2.758	P 12 (36-2)		18648.316	8.316	P175 (38-0)		18643.867	3.870	R 62 (30-0)
		6.817	R 59 (37-2)		18652.597	2.593	R 15 (36-2)		18648.196	8.195	P 20 (36-2)				
1232	18656.719	6.760	P158 (36-0)	1243	18652.373	2.375	R 57 (30-0)		18648.063	8.067	P175 (38-0)	1275	18643.867	3.870	R 62 (30-0)
		6.720	R109 (32-0)		18652.311	2.300	P 13 (36-2)								
	18656.072			1244	18652.164	2.166	P 54 (30-0)								
	18655.824	5.836	P 57 (37-2)			2.123	R 16 (36-2)								
1233	18655.736	5.738	R126 (33-0)	1245	18652.005	2.027	R 86 (31-0)								
	18655.628	5.631	P137 (34-0)			1.995	R 89 (31-0)								



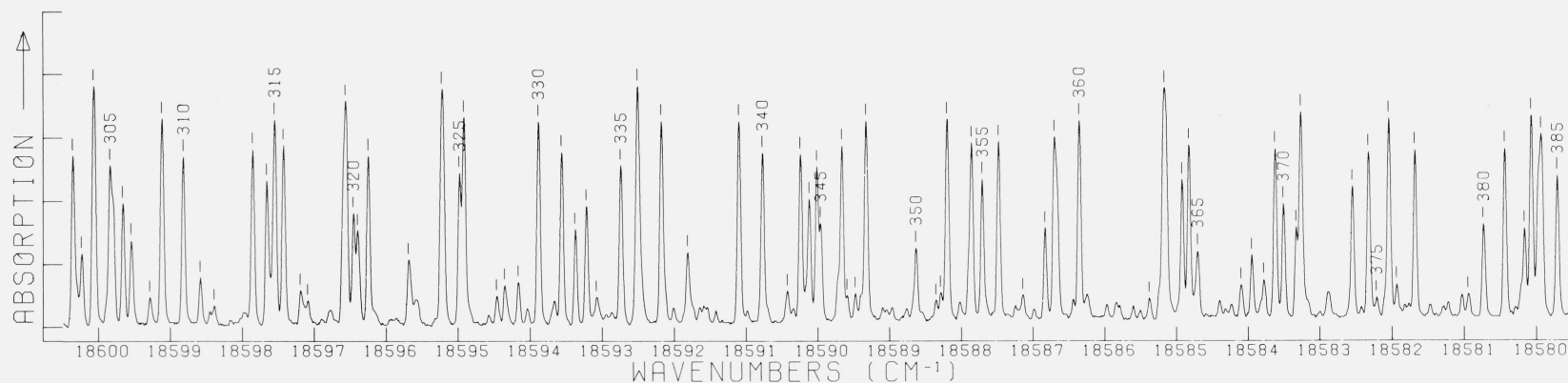
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LINE	OBS	CM-1	CALC	ASSIGNMENT	LINE	OBS	CM-1	CALC	ASSIGNMENT	LINE	OBS	CM-1	CALC	ASSIGNMENT	LINE	OBS	CM-1	CALC	ASSIGNMENT
118	18640.428	0.428	R 67 (37-2)		157	18630.420	0.416	P 38 (36-2)		177	18626.167	6.172	R 6 (29-0)		198	18623.368	3.376	P144 (34-0)	
119	18640.266	0.277	P111 (32-0)		158	18630.282	0.285	R173 (37-0)				6.167	P115 (32-0)				3.367	R 16 (29-0)	
		0.262	R 64 (30-0)				0.281	P 69 (37-2)				6.136	P 3 (29-0)				3.350	P164 (36-0)	
		0.235	R 32 (36-2)		159	18630.045	0.046	P 94 (31-0)		178	18626.018	6.070	R146 (34-0)		199	18623.260	3.259	P 13 (29-0)	
120	18640.041	0.027	P161 (36-0)		160	18629.974	9.973	R 97 (31-0)				6.019	R 7 (29-0)		200	18623.095	3.139	P 72 (37-2)	
		0.084	R143 (34-0)				9.926	R 41 (36-2)				5.976	P 4 (29-0)				3.096	R134 (33-0)	
		0.040	P 61 (30-0)		161	18629.740	9.743	P114 (32-0)			18625.906	5.908	R 44 (36-2)				3.068	R 46 (36-2)	
		0.040	R154 (35-0)				9.728	R156 (35-0)		179	18625.837	5.838	R 8 (29-0)		CALC	*****	3.011	P172 (37-0)	
121	18639.740	9.741	R114 (32-0)		162	18629.167	9.168	R117 (32-0)		180	18625.793	5.788	P 5 (29-0)		201	18622.930	2.930	R 17 (29-0)	
122	18639.690	9.686	R130 (33-0)				9.123	P 39 (36-2)		181	18625.628	5.629	R 9 (29-0)		202	18622.815	2.815	P 14 (29-0)	
123	18639.612	9.604	P 30 (36-2)				9.119	P171 (37-0)		182	18625.575	5.579	R118 (32-0)		203	18622.563	2.563	R 73 (30-0)	
	18639.394				143	18634.629	4.640	P162 (36-0)				5.571	P 6 (29-0)				2.559	P116 (32-0)	
124	18639.337	9.334	P 65 (37-2)				4.628	R 67 (30-0)		163	18629.014	9.014	P163 (36-0)		204	18622.465	2.464	R 18 (29-0)	
125	18639.223	9.218	R 33 (36-2)		144	18634.404	4.402	P 64 (30-0)			18628.811				205	18622.336	2.336	P 15 (29-0)	
	18639.055				145	18634.104	4.103	P 35 (36-2)		164	18628.730	8.729	R 70 (30-0)				2.331	P 70 (30-0)	
	18638.976				146	18633.733	3.729	R 70 (37-2)		165	18628.621	8.619	R 42 (36-2)				2.214	P155 (35-0)	
126	18638.517	8.568	P 31 (36-2)		147	18633.286	3.286	P113 (32-0)		166	18628.501	8.501	P130 (33-0)		185	18625.126	5.136	R166 (36-0)	
		8.518	P 91 (31-0)									8.500	P 67 (30-0)				5.125	R 11 (29-0)	
127	18638.416	8.462	R 94 (31-0)		148	18632.997	2.997	P 36 (36-2)		167	18628.092	8.089	P143 (34-0)		186	18625.054	5.053	P 8 (29-0)	
		8.414	R 65 (30-0)				2.901	P 93 (31-0)		168	18627.935	7.934	P 70 (37-2)				5.048	P 42 (36-2)	
128	18638.192	8.229	R 68 (37-2)		149	18632.838	2.834	R 96 (31-0)		169	18627.799	7.797	P 40 (36-2)		187	18624.831	4.830	R 12 (29-0)	
		8.190	P 62 (30-0)		150	18632.692	2.766	P142 (34-0)			18627.618				188	18624.752	4.751	P 9 (29-0)	
		8.170	R 34 (36-2)				2.725	R116 (32-0)			18627.424	7.425	P154 (35-0)		189	18624.649	4.648	R 72 (30-0)	
	18638.038						2.691	R 68 (30-0)		170	18627.293	7.294	R133 (33-0)		190	18624.507	4.517	R157 (35-0)	
	18637.939				151	18632.599	2.675	P129 (33-0)				7.280	R 43 (36-2)				4.507	R 13 (29-0)	
	18637.855						2.599	P153 (35-0)		171	18627.159	7.160	P 95 (31-0)				4.504	R 45 (36-2)	
129	18637.730	7.736	P152 (35-0)		152	18632.464	2.594	P 68 (37-2)		172	18627.083	7.082	R 98 (31-0)		191	18624.417	4.421	P 10 (29-0)	
130	18637.503	7.500	P 32 (36-2)				2.464	P 65 (30-0)			18626.870						4.417	P 69 (30-0)	
131	18637.411	7.409	P141 (34-0)				2.443	R 39 (36-2)		173	18626.704	6.728	R 73 (37-2)		192	18624.360	4.354	P131 (33-0)	
132	18637.100	7.121	P 66 (37-2)			18632.201						6.703	R 71 (30-0)				4.327	R 74 (37-2)	
		7.089	R 35 (36-2)			18631.861				174	18626.473	6.509	R 1 (29-0)		193	18624.242	4.244	P 96 (31-0)	
133	18636.793	6.798	P112 (32-0)		153	18631.677	1.678	P 37 (36-2)				6.499	R 2 (29-0)		194	18624.158	4.160	R 99 (31-0)	
		6.785	P128 (33-0)		154	18631.456	1.459	R132 (33-0)				6.491	R 0 (29-0)				4.159	R174 (37-0)	
134	18636.537	6.536	R 66 (30-0)				1.429	R 71 (37-2)				6.473	P 68 (30-0)				4.155	R 14 (29-0)	
	18636.400	6.444	R164 (36-0)			18631.267				195	18624.063	4.062	P 11 (29-0)		195	18624.063	4.062	P 11 (29-0)	
		6.400	P 33 (36-2)			18631.197	1.200	R 40 (36-2)			18623.931								
		6.370	R172 (37-0)		155	18630.725	0.809	R165 (36-0)		175	18626.396	6.392	R 4 (29-0)		196	18623.775	3.775	R 15 (29-0)	
135	18636.311	6.311	P 63 (30-0)				0.777	R145 (34-0)		176	18626.294	6.296	R 5 (29-0)		197	18623.676	3.675	P 12 (29-0)	
136	18636.249	6.249	R115 (32-0)				0.725	R 69 (30-0)				6.267	P 2 (29-0)				3.626	P 43 (36-2)	
137	18635.991	5.996	R 69 (37-2)		156	18630.498	0.497	P 66 (30-0)											
		5.976	R 36 (36-2)												219	18619.712	9.711	R 23 (29-0)	
															220	18619.554	9.555	R 20 (29-0)	
															221	18619.426	9.426	R167 (36-0)	
																	9.423	R 76 (37-2)	

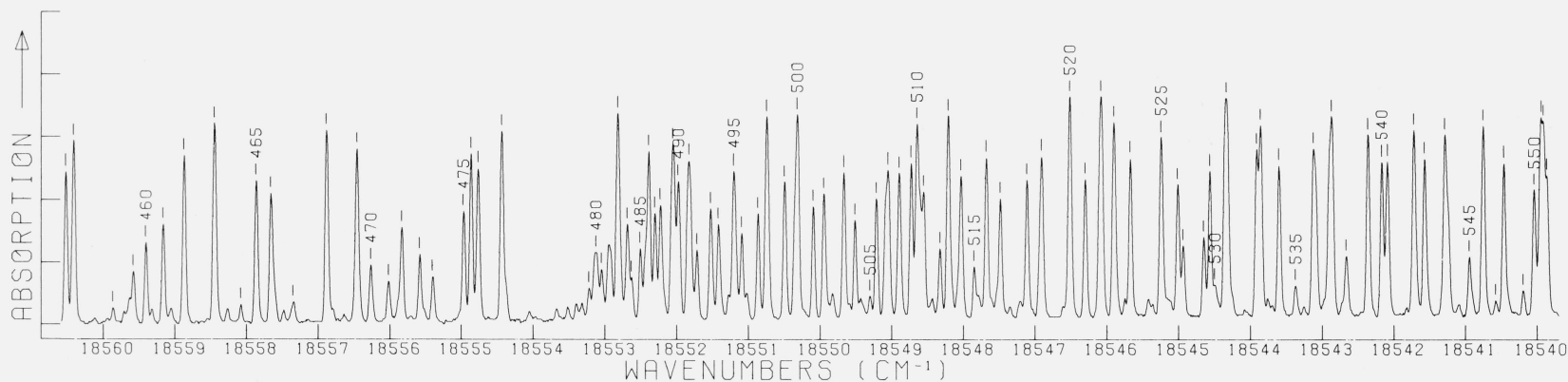


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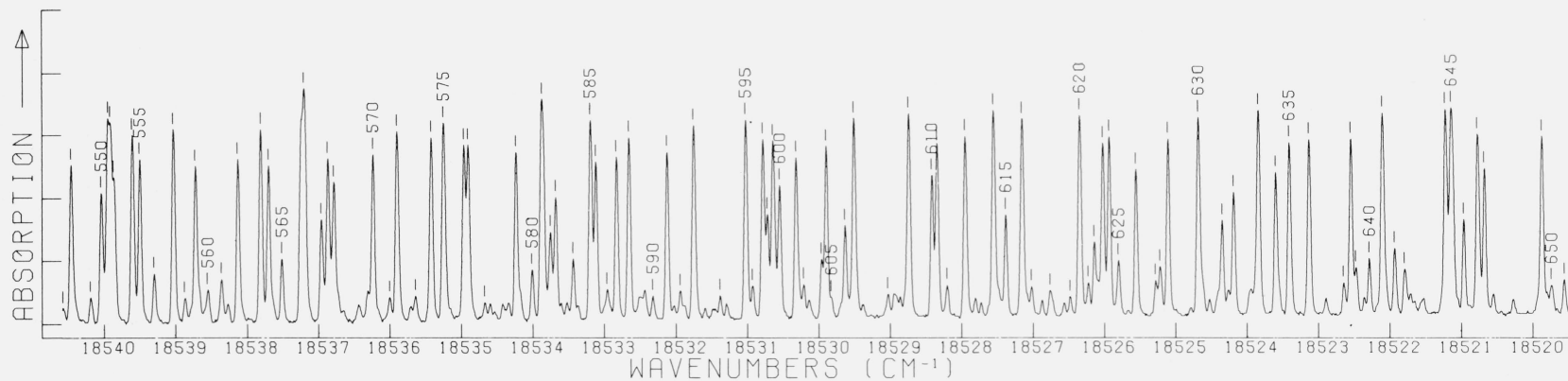
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215	18620.448	0.448	R 74	(30-0)	234	18616.554	6.549	R148	(34-0)	250	18612.270	2.270	P100	(31-0)	269	18608.211	8.210	R 37	(29-0)
216	18620.318	0.318	R 22	(29-0)	235	18616.450				251	18612.162	2.161	R103	(31-0)	270	18607.960	7.961	P 34	(29-0)
217	18620.214	0.216	P 71	(30-0)	236	18616.382				252	18612.069	2.067	R 33	(29-0)	271	18607.805	7.806	P120	(32-0)
218	18620.172	0.169	P 19	(29-0)	237	18616.054	6.055	P 25	(29-0)	253	18611.843	1.844	P 30	(29-0)	272	18607.677	7.677	P 53	(36-2)
		0.097	R 48	(36-2)	238	18615.898	5.899	P133	(33-0)	254	18611.692	1.692	R 78	(30-0)	273	18607.312	7.312	R135	(33-0)
219	18619.712	9.711	R 23	(29-0)	239	18615.689	5.689	P 75	(37-2)	255	18611.627	1.621	P134	(33-0)	274	18607.150	7.150	R123	(32-0)
220	18619.554	9.555	P 20	(29-0)	240	18615.466	5.466	R 29	(29-0)	256	18611.542	1.543	P119	(32-0)	275	18606.910	6.910	P 35	(29-0)
221	18619.426	9.424	R167	(36-0)	241	18615.270	5.270	P 26	(29-0)	257	18611.459	1.459	P 75	(30-0)			6.916	R 56	(36-2)
		9.423	R 76	(37-2)	242	18615.213	5.217	P118	(32-0)	258	18611.362	1.362	R 34	(29-0)			6.887	R150	(34-0)
	18619.270	9.268	R158	(35-0)	243	18614.658	4.658	R 30	(29-0)		18611.146	1.146	R 51	(36-2)			6.572	R 81	(37-2)
	18619.165	9.164	P 46	(36-2)			4.618	R121	(32-0)	259	18610.913	0.913	P 31	(29-0)			6.362	P158	(35-0)
222	18619.074	9.075	R 24	(29-0)			4.598	R136	(33-0)	260	18610.569	0.564	P 77	(37-2)			6.124	P167	(36-0)
223	18618.913	8.919	P117	(32-0)	243	18614.456	4.456	P 27	(29-0)	261	18610.407	0.407	R 54	(36-2)			6.110	R 39	(29-0)
		8.912	P 21	(29-0)			4.410	P 49	(36-2)	262	18610.301	0.298	R137	(33-0)			6.098	P102	(31-0)
		8.864	R135	(33-0)			4.384	R 78	(37-2)	263	18610.195	0.196	R 35	(29-0)			5.975	R105	(31-0)
224	18618.751									264	18609.959	9.959	P 32	(29-0)			5.963	R138	(33-0)
225	18618.633	8.628	P145	(34-0)						265	18609.785	9.785	R 79	(30-0)			5.849	P 36	(29-0)
226	18618.411	8.410	R 25	(29-0)						266	18609.629	9.629	P 52	(36-2)			5.838	P 54	(36-2)
227	18618.307	8.319	P 98	(31-0)						267	18609.429	9.429	R 80	(37-2)			5.531	R177	(37-0)
		8.304	R120	(32-0)						268	18609.204	9.210	R 80	(37-2)					
		8.303	R 75	(30-0)						269	18609.084	9.083	P101	(31-0)					
228	18618.231	8.240	P 22	(29-0)						270	18608.820	8.820	R 76	(30-0)					
		8.222	R101	(31-0)						271	18608.671	8.678	R 55	(36-2)					
		8.210	P 74	(37-2)						272	18608.501	8.501	P147	(34-0)					
229	18618.071	8.071	P 72	(30-0)						273	18608.326	8.326	P 33	(29-0)					
		7.991	R175	(37-0)						274	18608.151	8.151	R 55	(36-2)					
230	18617.717	7.717	R 26	(29-0)						275	18607.974	7.974	P101	(31-0)					
		7.647	P165	(36-0)						276	18607.805	7.805	R 78	(30-0)					
231	18617.541	7.540	P 23	(29-0)						277	18607.677	7.677	P101	(31-0)					
232	18616.995	6.997	R 50	(36-2)						278	18607.501	7.501	R 81	(30-0)					
		6.995	R 27	(29-0)						279	18607.312	7.312	R 81	(30-0)					
		6.967	P156	(35-0)						280	18607.150	7.150	R 80	(30-0)					
		6.921	R 77	(37-2)						281	18606.910	6.910	P 35	(29-0)					
233	18616.812	6.862	P173	(37-0)						282	18606.735	6.735	R 56	(36-2)					
		6.812	P 24	(29-0)						283	18606.573	6.573	P 54	(36-2)					
										284	18606.409	6.409	R 81	(37-2)					
										285	18606.246	6.246	P158	(35-0)					
										286	18606.084	6.084	P167	(36-0)					
										287	18605.910	5.910	R 39	(29-0)					
										288	18605.735	5.735	P102	(31-0)					
										289	18605.569	5.569	R105	(31-0)					
										290	18605.407	5.407	R138	(33-0)					
										291	18605.246	5.246	P 36	(29-0)					
										292	18605.084	5.084	P 54	(36-2)					
										293	18604.929	4.929	R 79	(30-0)					
										294	18604.770	4.770	P 79	(37-2)					
										295	18604.612	4.612	R 57	(36-2)					
										296	18604.458	4.458	R 40	(29-0)					
										297	18604.301	4.301	R 40	(29-0)					
										298	18604.147	4.147	R 81	(30-0)					
										299	18604.000	4.000	P 37	(29-0)					
										300	18603.842	3.842	R 30	(30-0)					
										301	18603.684	3.684	R 30	(30-0)					
										302	18603.526	3.526	P175	(37-0)					
										303	18603.368	3.368	R 44	(29-0)					
										304	18603.210	3.210	R 44	(29-0)					
										305	18603.052	3.052	P148	(34-0)					
										306	18602.894	2.894	P121	(32-0)					
										307	18602.736	2.736	P 55	(36-2)					
										308	18602.578	2.578	R 55	(36-2)					
										309	18602.420	2.420	R 55	(36-2)					
										310	18602.262	2.262	R 55	(36-2)					
										311	18602.104	2.104	R 55	(36-2)					
										312	18601.946	1.946	R 55	(36-2)					
										313	18601.788	1.788	R 55	(36-2)					
										314	18601.630	1.630	R 55	(36-2)					
										315	18601.472	1.472	R 55	(36-2)					
										316	18601.314	1.314	R 55	(36-2)					
										317	18601.156	1.156	R 55	(36-2)					
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										319	18600.842	0.842	R 55	(36-2)					
										320	18600.684	0.684	R 55	(36-2)					
										321	18600.526	0.526	R 55	(36-2)					
										322	18600.368	0.368	R 55	(36-2)					
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										324	18600.052	0.052	R 55	(36-2)					
										325	18599.894	0.894	R 55	(36-2)					
										326	18599.736	0.736	R 55	(36-2)					
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										328	18599.420	0.420	R 55	(36-2)					
										329	18599.262	0.262	R 55	(36-2)					
										330	18599.104	0.104	R 55	(36-2)					
										331	18598.946	0.946	R 55	(36-2)					
										332	18598.788	0.788	R 55	(36-2)					
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										334	18598.472	0.472	R 55	(36-2)					
										335	18598.314	0.314	R 55	(36-2)					
										336	18598.156	0.156	R 55	(36-2)					
										337	18597.998	0.998	R 55	(36-2)					
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										339	18597.682	0.682	R 55	(36-2)					



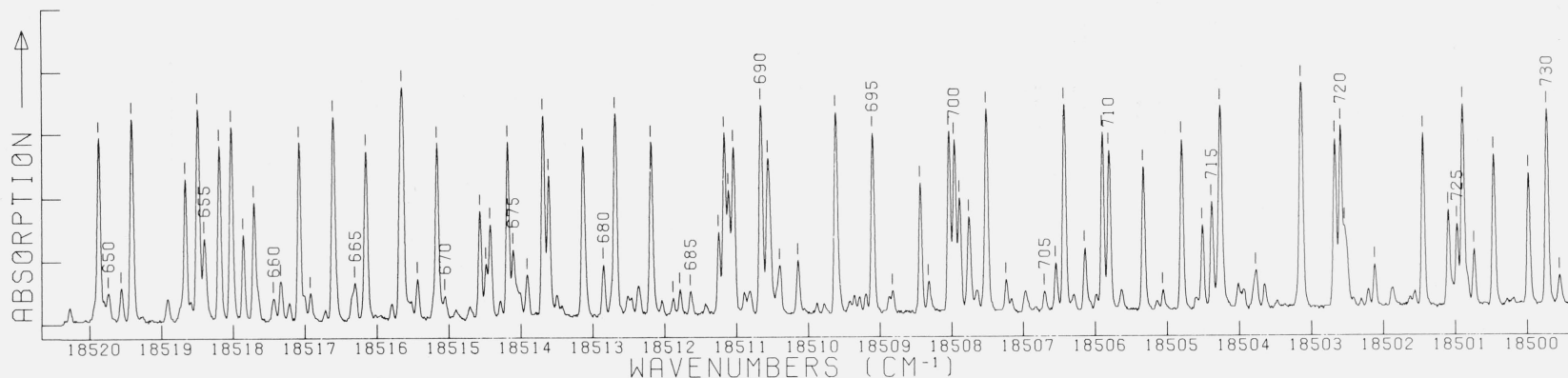
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302	18600.361		0.360	R 44 (29-0)	323	18595.694		5.700	R126 (32-0)	337	18592.188		2.188	P 47 (29-0)	352	18588.291		8.286	R142 (33-0)
			0.305	P 57 (36-2)				5.679	R 85 (37-2)				2.167	P 16 (35-2)	353	18588.204		8.236	P 22 (35-2)
			0.304	P168 (36-0)				5.661	R 62 (36-2)				2.125	R153 (34-0)			8.204	R 53 (29-0)	
303	18600.236		0.236	P122 (32-0)		18595.591		5.608	P160 (35-0)	338	18592.012		2.011	R 19 (35-2)	354	18588.022		8.026	R 25 (35-2)
304	18600.071		0.077	R A33 (30-0)				5.563	R 11 (35-2)		18591.891		1.856	P177 (37-0)			8.094	R128 (32-0)	
			0.069	P 41 (29-0)	324	18595.232		5.244	R 48 (29-0)				1.819	R127 (32-0)			7.861	P 50 (29-0)	
			0.062	R 89 (2-0)				5.229	R 12 (30-0)		18591.644		1.647	R 7 (37-2)	355	18587.713		7.714	R 88 (30-0)
305	18599.844		0.845	P 40 (30-0)				5.221	R 35 (30-0)		18591.587		1.590	P 17 (35-2)	356	18587.447		7.502	R 66 (36-2)
			0.802	P104 (31-0)	325	18594.991		4.992	P A2 (30-0)		18591.544		1.538	P 84 (37-2)			7.487	P 85 (30-0)	
306	18599.664		0.664	R107 (31-0)	326	18594.929		4.930	P 45 (29-0)		18591.425		1.426	R 20 (35-2)			7.471	P 23 (35-2)	
307	18599.547		0.549	R125 (32-0)				4.864	R 13 (35-2)	339	18591.106		1.106	R 51 (29-0)			7.252	R 26 (35-2)	
			0.544	R 60 (36-2)		18594.581		4.579	P 11 (35-2)		18590.984		0.982	P 18 (35-2)	357	18587.143		7.150	R 88 (37-2)
308	18599.288		0.283	P149 (34-0)	327	18594.471		4.478	P 60 (36-2)	340	18590.775		0.809	R 21 (35-2)			7.133	R154 (34-0)	
309	18599.125		0.124	R135 (29-0)				4.467	R 14 (35-2)		18590.429		0.775	P A8 (29-0)			6.986	P 90 (30-0)	
310	18598.827		0.827	P 42 (29-0)				4.446	P 82 (37-2)	341	18590.429		0.430	P 36 (36-2)	358	18586.637		6.338	P108 (31-0)
311	18598.588		0.585	P137 (33-0)	328	18594.362		4.359	P150 (34-0)	342	18590.344		0.343	P 19 (35-2)	359	18586.707		6.709	R 54 (29-0)
312	18598.453		0.453	R 84 (37-2)				4.358	P 83 (37-2)		18590.248		0.271	R172 (36-0)			6.674	P 24 (35-2)	
312	18598.394		0.395	P 58 (36-2)	329	18594.171		4.171	P138 (33-0)	343	18590.125		0.247	R 87 (30-0)			6.668	R111 (31-0)	
	18598.167		0.169	P176 (37-0)				4.159	P 12 (35-2)				0.176	P161 (35-0)			6.446	R 27 (35-2)	
	18597.975					18594.043		4.039			18590.019		0.160	R 22 (35-2)	360	18586.361		6.362	P 51 (29-0)
313	18597.861		7.900	R162 (35-0)	330	18593.894		3.894	R 49 (29-0)				0.126	P107 (31-0)			6.252	P 64 (36-2)	
			7.866	R 80 (29-0)		18593.675		3.706	R 66 (36-2)	344	18590.019		0.027	R 67 (37-2)			6.155	R 77 (30-0)	
314	18597.664		7.664	R 84 (30-0)				3.670	R 63 (36-2)	345			0.019	P A4 (30-0)			5.846	P 25 (35-2)	
			7.619	R 61 (36-2)	331	18593.573		3.579	R 16 (35-2)	346	18589.966		0.964	R110 (31-0)			5.797	P 86 (37-2)	
315	18597.557		7.556	P 43 (29-0)				3.573	P 46 (29-0)	346	18589.669		0.724	P139 (33-0)			5.608	R 28 (35-2)	
316	18597.433		7.433	P 81 (30-0)	332	18593.381		3.382	P106 (31-0)				0.672	P 20 (35-2)			5.501	P178 (37-0)	
317	18597.195		7.193	R140 (33-0)	333	18593.228		3.229	P109 (31-0)				0.669	R 52 (29-0)	361	18585.382		5.381	R 67 (36-2)
318	18597.094		7.094	P 82 (37-2)				3.226	P 14 (35-0)	347	18589.595		0.591	R 65 (36-2)	362	18585.174		5.174	P144 (33-0)
			7.082	R152 (34-0)	334	18593.085		3.088	R 17 (35-2)		18589.481		0.481	R 9 (35-2)			5.186	P 55 (29-0)	
	18596.900					18592.949					18589.400		0.398	P151 (34-0)			5.152	R 49 (30-0)	
	18596.778					18592.871		2.870	R 86 (37-2)	348	18589.333		0.332	P 49 (29-0)	363	18584.926		4.986	P 26 (35-2)
319	18596.571		6.608	P105 (31-0)	335	18592.751		2.756	R141 (33-0)		18589.096						4.926	P 86 (30-0)	
			6.566	R 47 (29-0)				2.749	R 86 (30-0)		18589.048				364	18584.833		4.833	P 52 (29-0)
320	18596.460		6.462	R108 (31-0)				2.712	P 15 (35-2)		18588.970		0.970	P 21 (35-2)	365	18584.709		4.709	P 29 (35-2)
			6.453	P 59 (36-2)	336	18592.518		2.565	R 18 (35-2)		18588.769		0.769	R 24 (35-2)			4.737	R126 (32-0)	
321	18596.402		6.402	P123 (32-0)				2.536	P124 (32-0)	350	18588.638		0.638	R 85 (37-2)			4.706	P 18 (36-2)	
322	18596.257		6.257	R 40 (25-0)				2.520	P 12 (35-0)				0.638	P125 (32-0)			4.638	P132 (34-0)	
	18596.182		6.181	R171 (36-0)				2.514	R 50 (29-0)		18588.552		0.547	R170 (36-0)			4.403	P152 (34-0)	
	18595.943							2.471	P 61 (36-2)	351	18588.358		0.358	P 63 (36-2)			4.322	R173 (36-0)	
	18595.871		5.866	R 10 (35-2)				2.464	R163 (35-0)								4.239	R 89 (37-2)	



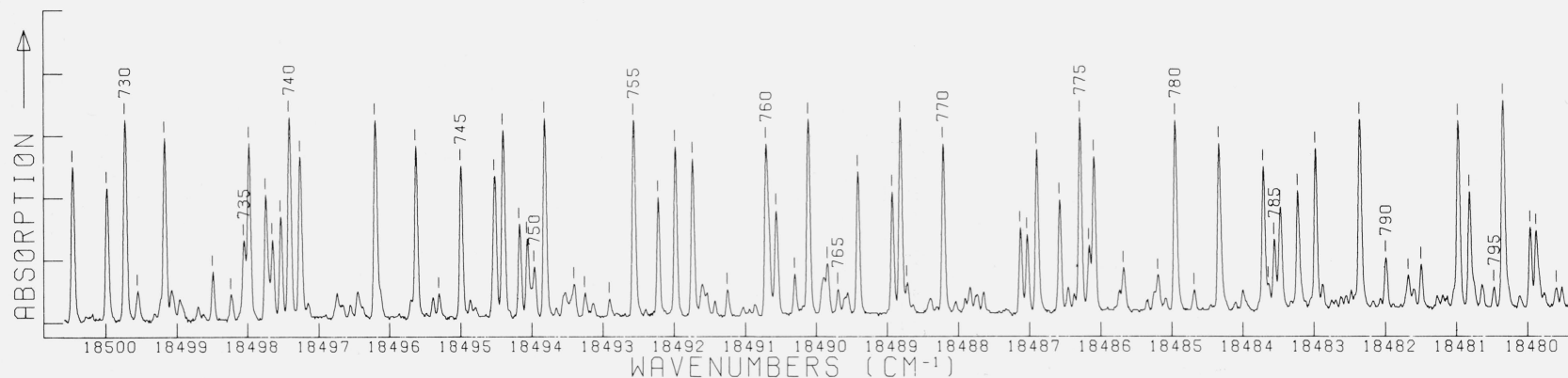
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456	18560.529	0.528	P 95 (30-0)		476	18554.875	4.879	P 50 (35-2)		492	18551.723	1.722	P 8 (28-0)		515	18547.857	7.855	P135 (32-0)	
457	18560.419	0.434	P132 (32-0)				4.875	R 72 (29-0)		493	18551.534	1.546	P 52 (35-2)			18547.792			
		0.415	P 66 (29-0)		477	18554.776	4.795	R 80 (36-2)				1.533	R 12 (28-0)		516	18547.687	7.687	R 21 (28-0)	
	18560.125	0.125	R177 (36-0)				4.776	P 97 (30-0)		494	18551.425	1.425	P 9 (28-0)		517	18547.491	7.491	P 18 (28-0)	
458	18559.868	9.865	R 78 (36-2)		478	18554.447	4.447	P 69 (29-0)			18551.284	1.279	R150 (33-0)			7.547	R 57 (35-2)		
	18559.710	9.712	R 97 (37-2)				4.387	R 53 (35-2)		495	18551.211	1.217	R 13 (28-0)			18547.357			
	9.640	P 47 (35-2)				18554.055					1.194	R137 (32-0)			18547.216				
459	18559.585	9.583	R135 (32-0)			18553.974	3.975	R178 (36-0)			1.175	R161 (34-0)		518	18547.120	7.120	R 22 (28-0)		
460	18559.411	9.411	P116 (31-0)			18553.681	3.677	P158 (34-0)		496	18551.099	1.099	P 10 (28-0)		519	18546.916	6.916	R138 (32-0)	
	18559.327					18553.526					1.098	P168 (35-0)			6.942	R 83 (36-2)			
461	18559.169	9.169	R 50 (35-2)			18553.409					1.031	R 55 (35-2)			6.915	P 19 (28-0)			
	18559.056	9.056	R119 (31-0)			18553.331	3.323	P 78 (36-2)		497	18550.873	0.874	R 14 (28-0)		520	18546.524	6.524	R101 (37-2)	
462	18558.877	8.877	P157 (34-0)		479	18553.230	3.234	R 99 (37-2)		498	18550.752	0.758	R 74 (29-0)			6.525	R 76 (29-0)		
		8.875	R 70 (29-0)				3.228	P 51 (35-2)			0.746	P 11 (28-0)			6.525	R 23 (28-0)			
463	18558.454	8.455	P 67 (29-0)		480	18553.131	3.165	R 1 (28-0)			0.723	P 79 (36-2)		521	18546.309	6.309	P 20 (28-0)		
		8.423	P 76 (36-2)				3.156	R 2 (28-0)		499	18550.502	0.502	R 15 (28-0)			6.307	P 55 (35-2)		
	18558.270	8.268	P 95 (37-2)				3.147	R 0 (28-0)		500	18550.325	0.325	P 71 (29-0)		522	18546.089	6.110	R103 (30-0)	
464	18558.083	8.085	P 48 (35-2)		481	18553.056	3.055	R 4 (28-0)		501	18550.102	0.103	R 16 (28-0)			6.083	P 73 (29-0)		
465	18557.871	7.870	R 99 (30-0)				3.025	P 1 (28-0)		502	18549.954	9.955	P 13 (28-0)		523	18545.907	5.902	P100 (30-0)	
466	18557.665	7.667	P 96 (30-0)			18552.939	2.962	R 5 (28-0)			9.943	R100 (37-2)			5.902	R 24 (28-0)			
		7.639	P146 (33-0)				2.923	P 2 (28-0)			9.831	P 53 (35-2)			5.892	R162 (34-0)			
		7.615	R 51 (35-2)				2.918	P147 (33-0)		503	18549.831	9.831	P 17 (28-0)		524	18545.754	5.758	R 58 (35-2)	
467	18557.489	7.487	R 79 (36-2)		482	18552.832	2.842	R 6 (28-0)			9.675	R 17 (28-0)			5.678	P 11 (28-0)			
468	18556.890	6.890	R 71 (29-0)				2.831	R 73 (29-0)			9.593	R 82 (36-2)		525	18545.423	5.423	P 81 (36-2)		
	18556.799	6.793	P167 (35-0)				2.792	P 3 (28-0)			9.518	P 14 (28-0)			5.364	P169 (35-0)			
	18556.638				483	18552.696	2.725	R 54 (35-2)		505	18549.310	9.305	R 56 (35-2)		526	18545.251	5.251	R 25 (28-0)	
469	18556.467	6.498	P 49 (35-2)				2.693	R 7 (28-0)		506	18549.221	9.220	R 18 (28-0)			5.140	P 99 (37-2)		
		6.490	R 98 (37-2)		484	18552.640	2.634	P 4 (28-0)			9.096	R102 (30-0)		527	18544.942	4.944	P120 (31-0)		
		6.465	P 68 (29-0)		485	18552.517	2.517	R 8 (28-0)		507	18549.058	9.058	P 15 (28-0)		528	18544.659	4.660	R123 (31-0)	
		6.421	R160 (34-0)		486	18552.400	2.448	P 5 (28-0)		508	18548.902	8.902	P 99 (30-0)		529	18544.572	4.573	R 26 (28-0)	
470	18556.271	6.274	P133 (32-0)				2.399	P 70 (29-0)		509	18548.736	8.737	R 19 (28-0)		530	18544.502	4.497	P 56 (35-2)	
471	18556.023	6.026	R149 (33-0)		487	18552.313	2.313	R 9 (28-0)		510	18548.655	8.656	R 75 (29-0)		531	18544.346	4.365	R 77 (29-0)	
		6.017	R 52 (35-2)				2.240	P118 (31-0)			8.608	P119 (31-0)			4.329	P 23 (28-0)			
472	18555.840	5.849	P 77 (36-2)				2.234	P 6 (28-0)		511	18548.563	8.561	P 16 (28-0)			4.257	R 84 (36-2)		
		5.841	P117 (31-0)				2.211	R 81 (36-2)			8.474	P 98 (37-2)		532	18543.919	3.936	R 59 (35-2)		
18555.718					489	18552.060	2.081	P134 (32-0)			8.430	P159 (34-0)			3.920	P 74 (29-0)			
473	18555.588	5.589	R120 (31-0)				2.081	R 10 (28-0)		512	18548.333	8.335	R122 (31-0)		533	18543.867	3.866	R 27 (28-0)	
474	18555.407	5.405	R136 (32-0)		490	18551.984	1.992	P 7 (28-0)		513	18548.220	8.226	R 20 (28-0)			3.760	R 27 (31-1)		
475	18554.977	5.038	P 96 (37-2)				1.978	R121 (31-0)			8.218	P148 (33-0)							
		4.976	R100 (30-0)		491	18551.836	1.854	P 98 (30-0)		514	18548.040	8.040	P 54 (35-2)						
							1.821	R 11 (28-0)			8.091	P 10 (36-2)							
							1.773	P 97 (37-2)			8.040	P 17 (28-0)							

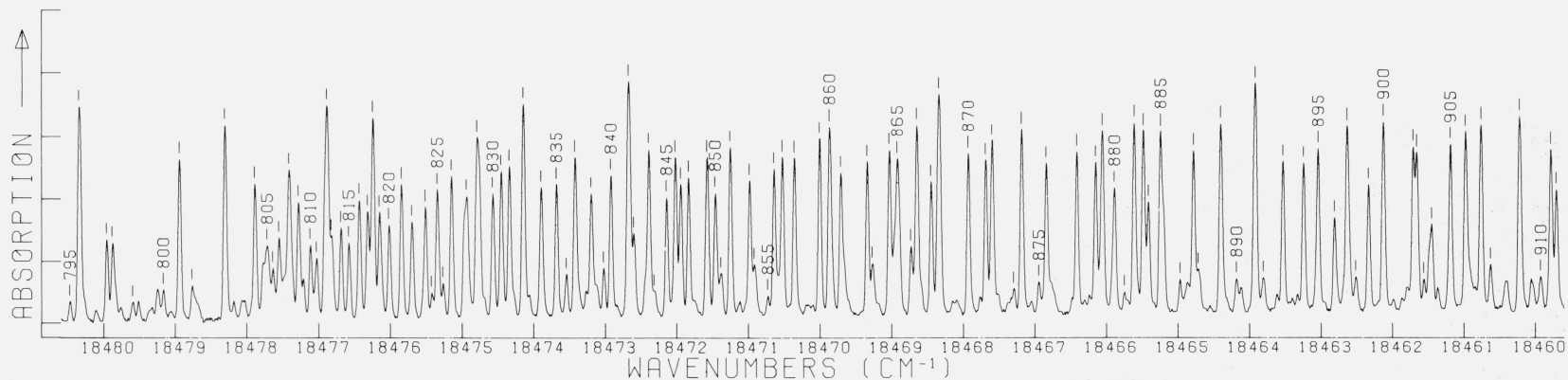


LINE	OBS	CM-1	CALC	ASSIGNMENT	LINE	OBS	CM-1	CALC	ASSIGNMENT	LINE	OBS	CM-1	CALC	ASSIGNMENT	LINE	OBS	CM-1	CALC	ASSIGNMENT
547	18540.563		0.573	R163 (34-0)	570	18536.247		6.247	R 36 (28-0)	592	18531.945			P 81 (29-0)	633	18523.850			P 43 (31-1)
548	18540.471		0.469	R 31 (31-1)	571	18536.010		6.003	R 87 (36-2)		18531.890			P104 (37-2)		18523.607			P153 (33-0)
			0.469	P 28 (28-0)	572	18535.910		5.910	P 33 (28-0)	593	18531.759		1.760	P 37 (28-0)					P 47 (28-0)
549	18540.197		0.196	R 61 (35-2)		18535.714		5.720	R 36 (31-1)		18531.598		1.597	P 86 (36-2)					P 86 (29-0)
550	18540.047		0.048	R105 (30-0)	573	18535.646					18531.461		1.490	P 16 (34-2)					P 27 (34-2)
551	18539.951		9.993	P 83 (36-2)	574	18535.432		5.432	R 81 (29-0)				1.457	P103 (37-2)	614	18527.563		7.627	P 22 (34-2)
			9.957	R 79 (29-0)	575	18535.259		5.260	R 37 (28-0)	594	18531.385		1.381	R 40 (31-1)					P 44 (28-0)
552	18539.920		9.913	R 32 (28-0)				5.218	R164 (34-0)		18531.300		1.301	P 37 (31-1)					P 83 (29-0)
553	18539.872		9.866	P102 (30-0)	576	18534.975		4.979	P138 (32-0)	595	18531.032		1.033	R 41 (28-0)					P 89 (36-2)
			9.862	R103 (37-2)				4.975	P 78 (29-0)	596	18530.935		0.933	P 63 (35-2)					P 28 (34-2)
554	18539.612		9.614	P 29 (28-0)				4.968	P 61 (35-2)				0.923	P 17 (34-2)	615	18527.392		7.392	P106 (30-0)
			9.592	P170 (35-0)	577	18534.916		4.930	P102 (37-2)	597	18530.791		0.790	R 83 (29-0)					P 44 (31-1)
			9.588	R 32 (31-1)				4.915	P 34 (28-0)	598	18530.728		0.726	R108 (30-0)	616	18527.162		7.161	P 41 (28-0)
555	18539.506		9.506	P 76 (29-0)	578	18534.680		4.680	R 37 (31-1)	599	18530.650		0.652	P 38 (28-0)					P163 (34-0)
556	18539.306		9.304	P137 (32-0)		18534.604		4.603	P 34 (31-1)				0.621	P139 (32-0)	617	18527.027		7.019	R155 (33-0)
557	18539.038		9.038	R 33 (28-0)		18534.541							0.556	P105 (30-0)					P 23 (34-2)
558	18538.875		8.876	P 59 (35-2)		18534.428		4.429	P 85 (36-2)	600	18530.556		0.556	P105 (30-0)	618	18526.765		6.769	P 65 (35-2)
559	18538.728		8.788	R 86 (36-2)		18534.347		4.346	R 64 (35-2)	601	18530.328		0.333	R 89 (36-2)		18526.571		6.570	R 44 (31-1)
			8.730	P 30 (28-0)	579	18534.246		4.246	R 38 (28-0)				0.329	P 80 (29-0)	619	18526.487		6.485	P 41 (31-1)
			8.665	R 33 (31-1)	580	18534.020		4.016	R141 (32-0)				0.285	R 66 (35-2)	620	18526.355		6.356	R 45 (28-0)
560	18538.557		8.549	P150 (33-0)	581	18533.883		3.891	P 35 (28-0)	602	18530.220		0.222	R 41 (31-1)	621	18526.232		6.230	P140 (32-0)
561	18538.364		8.368	P101 (37-2)				3.864	R107 (30-0)		18530.147		0.141	P 38 (31-1)	622	18526.149		6.149	P125 (31-0)
			8.361	R140 (32-0)	582	18533.762		3.763	P171 (35-0)	603	18529.970		9.971	P124 (31-0)					P 68 (35-2)
	18538.275		8.278	R 62 (35-2)				3.762	P123 (31-0)	604	18529.906		9.906	R 42 (28-0)	623	18526.031		6.031	R 25 (29-0)
562	18538.137		8.136	R 34 (28-0)	583	18533.689		3.690	P151 (33-0)	605	18529.834		9.825	R165 (34-0)	624	18525.941		5.941	P 42 (28-0)
563	18537.818		7.827	P161 (34-0)				3.690	P104 (30-0)	606	18529.641		9.697	P 19 (34-2)		18525.810		5.832	P 88 (36-2)
			7.818	P 31 (28-0)		18533.611		3.610	R 38 (31-1)				9.642	R127 (31-0)	625			5.808	R128 (31-0)
564	18537.709		7.713	R 34 (31-1)		18533.532		3.532	P 35 (31-1)				9.639	R142 (32-0)	626	18525.565		5.565	P 82 (29-0)
			7.709	R 80 (29-0)	584	18533.443		3.444	R126 (31-0)	607	18529.516		9.516	P 39 (28-0)	627	18525.289		5.293	R 45 (31-1)
565	18537.519		7.521	P122 (31-0)									9.467	R106 (37-2)				5.279	P 25 (34-2)
566	18537.210		7.255	P 77 (29-0)	585	18533.203		3.202	R 39 (28-0)		18529.386				628	18525.226		5.227	R143 (32-0)
			7.228	P 84 (36-2)				3.185	R 88 (36-2)	608	18529.039		9.038	P 20 (34-2)				5.207	P 42 (31-1)
			7.215	R125 (31-0)	586	18533.126		3.126	R 82 (29-0)				9.034	R 42 (31-1)	629	18525.117		5.117	R 46 (28-0)
			7.205	R 35 (28-0)	587	18532.968		2.967	R105 (37-2)		18528.941		8.952	P 39 (31-1)		18524.792			
567	18536.970		6.971	R106 (30-0)				2.966	P 62 (35-2)		18528.870		8.867	P 64 (35-2)	630	18524.693		4.693	P 43 (28-0)
			6.938	P 60 (35-2)	588	18532.840		2.839	P 36 (28-0)				8.797	P152 (33-0)				4.639	P 66 (35-2)
568	18536.879		6.878	R 32 (28-0)	589	18532.666		2.667	P 79 (29-0)		18528.750		8.751	R 43 (28-0)		18524.529		4.528	R 91 (36-2)
569	18536.794		6.828	R153 (33-0)		18532.506		2.510	R 39 (31-1)				8.731	P 87 (36-2)	631	18524.357		4.434	P 26 (34-2)
			6.793	P103 (30-0)		18532.446		2.471	P162 (34-0)	610	18528.425		8.425	R 84 (29-0)				4.407	P105 (37-2)
			6.731	R 35 (31-1)				2.431	P 36 (31-1)	611	18528.353		8.352	P 40 (28-0)				4.396	R166 (34-0)
	18536.660				590	18532.328		2.331	R 65 (35-2)				8.348	P 21 (34-2)				4.358	R110 (30-0)
	18536.443		6.432	R104 (37-2)	591	18532.132		2.132	R 40 (28-0)	612	18528.211		8.206	R 67 (35-2)	632	18524.269		4.197	P107 (30-0)
	18536.319		6.328	R 63 (35-2)		18532.030		2.026	P 15 (34-2)							18524.196		3.987	R 46 (31-1)
																18523.954		3.952	R 69 (35-2)

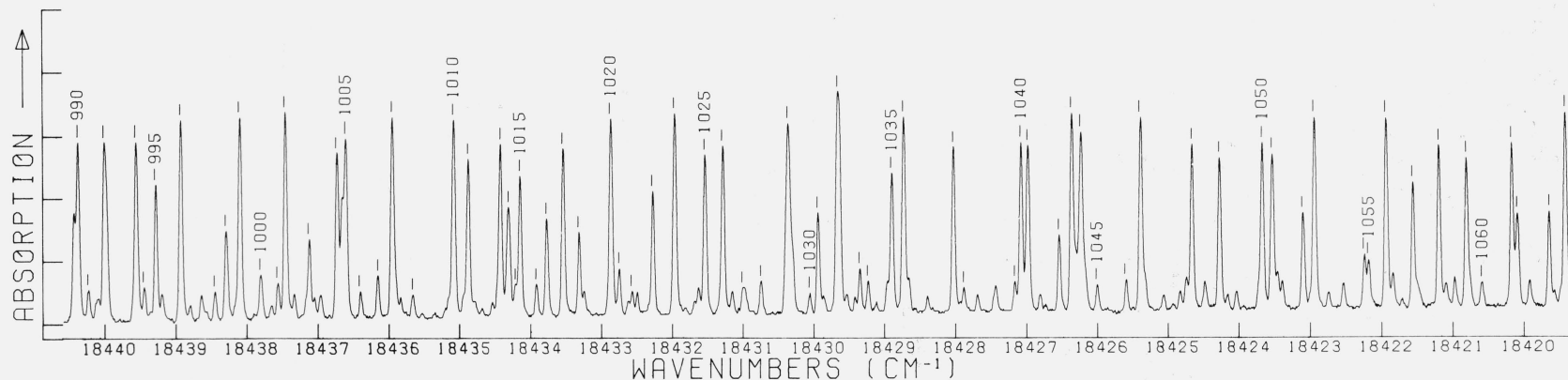


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649	18502.282	0.282	P 68	(35-2)	666	18516.160	6.186	P165	(34-0)	682	18512.369	2.380	P 51	(31-1)	701	18507.901	7.901	R115	(30-0)	717	18503.775	3.805	P157	(33-0)
	18519.879	9.934	P 90	(36-2)			6.160	R 89	(29-0)		18512.197	2.197	P 52	(28-0)		7.886	R169	(34-0)			3.772	P145	(32-0)	
		9.890	R 49	(31-1)			6.123	P174	(35-0)		18512.050	2.042	P158	(33-0)	702	18507.767	7.791	R 44	(34-2)			3.656	R 47	(34-2)
		9.878	R 50	(28-0)		667	18515.796	5.797	P 70	(35-2)	683	18511.887	1.889	P 38	(34-2)		7.767	P112	(30-0)	718	18503.148	3.207	R 78	(35-2)
		9.802	R 46	(31-1)		18515.658	5.658	P10	(30-0)	684	18511.792	1.792	P146	(32-0)		7.735	P 44	(34-2)			3.160	R 94	(29-0)	
650	18519.743	9.743	P 31	(34-2)			5.653	R 53	(28-0)	685	18511.643	1.645	R 41	(34-2)		7.727	R112	(37-2)			3.153	R 98	(36-2)	
651	18519.565	9.568	R 71	(35-2)			5.570	R 94	(36-2)		18511.435	1.439	R111	(37-2)		7.663	R 57	(31-1)			3.144	R 61	(28-0)	
652	18519.419	9.553	R 34	(34-2)		18515.532	5.528	R 52	(31-1)	686	18511.254	1.254	R114	(30-0)	703	18507.525	7.571	P 54	(31-1)	719	18502.679	2.680	P 91	(29-0)
	18518.918	9.480	P 47	(28-0)	668	18515.441	5.443	P 35	(34-2)		18511.175	1.182	P 72	(35-2)		7.525	P 55	(28-0)			2.665	R148	(32-0)	
		9.430	R167	(34-0)			5.437	P 49	(31-1)			1.174	R 56	(28-0)	704	18507.248	7.245	R147	(32-0)	720	18502.598	2.599	P 58	(28-0)
653	18518.672	8.905	P154	(33-0)	669	18515.171	5.221	R 38	(34-2)	688	18511.115	1.115	P111	(30-0)		18507.176	7.176	R159	(33-0)			2.584	R148	(32-0)
		8.756	R107	(35-2)			5.107	P 50	(28-0)	689	18511.048	1.048	R 91	(29-0)		18506.982	6.979	R159	(33-0)	721	18502.543	2.547	P131	(31-0)
		8.719	P 32	(34-2)			5.111	R110	(37-2)		18510.896	0.898	R 55	(31-1)	705	18506.772	6.716	P 42	(34-2)			2.510	P 45	(34-2)
654	18518.590	8.672	R 88	(29-0)	670	18515.059	5.056	R 73	(35-2)		18510.821	0.835	P 93	(36-2)	706	18506.558	6.558	P130	(31-0)			2.496	P 57	(31-1)
	18518.499	8.590	R 33	(36-2)		18514.907					0.806	P 52	(31-1)	707	18506.441	6.443	R 45	(34-2)		18502.417	2.417	P111	(37-2)	
		8.516	R 35	(34-2)		18514.704				690	18510.666	0.644	P166	(34-0)		6.440	R 59	(28-0)		18502.312	2.308	R170	(34-0)	
655	18518.407	8.498	R 51	(28-0)	671	18514.574	4.576	R113	(30-0)		0.668	P 53	(28-0)		6.439	P 74	(35-2)		18502.215	2.215	R 40	(34-2)		
		8.466	R 50	(31-1)	672	18514.489	4.490	I28	(31-0)		0.642	P 30	(32-0)	691	18510.568	0.572	R 88	(29-0)		18502.125	2.126	R136	(34-2)	
		8.408	R18514	430	673	18514.430	4.431	P110	(30-0)		0.572	R 88	(29-0)		0.540	I29	(31-0)	708	18506.312	6.169	P110	(37-2)		
656	18518.200	8.200	P 65	(29-0)	674	18514.188	4.188	R 54	(28-0)	692	18510.402	0.413	R 75	(35-2)		6.154	R133	(31-0)		18501.631				
657	18518.033	8.055	P 89	(35-2)	675	18514.110	4.112	R131	(31-0)		0.392	R 42	(34-2)	709	18505.999	5.991	P 56	(28-0)	723	18501.453	1.453	R 62	(28-0)	
	8.042	R130	(31-0)			4.060	R 39	(34-2)	693	18510.500	0.160	P175	(35-0)		5.909	P 55	(31-1)		1.434	P 96	(36-2)			
	8.032	P 48	(28-0)			4.014	R 53	(31-1)		0.149	R132	(31-0)	710	18505.818	5.819	R 93	(29-0)	724	18501.101	1.102	R117	(30-0)		
658	18517.865	7.867	R112	(30-0)	676	18513.915	3.913	P 51	(36-2)	CALC	*****		18505.644	5.644	711	18505.644	5.644	R109	(37-2)		5.646			
659	18517.716	7.716	R 71	(34-2)			3.901	P155	(33-0)	694	18509.624	9.624	P 67	(28-0)		5.345	P 43	(34-2)		18501.981	0.981	P114	(30-0)	
		7.658	P 33	(34-2)			3.901	P 92	(36-2)		18509.432	9.429	R 96	(36-2)		5.340	P 90	(29-0)	725	18500.981	0.901	P 59	(28-0)	
660	18517.442	7.449	R 36	(34-2)	677	18513.698	3.698	P 51	(28-0)		18509.365	9.365	P 40	(34-2)		5.145	P167	(34-0)		0.835	R 61	(31-1)		
661	18517.343	7.347	P142	(32-0)	678	18513.619	3.619	R 90	(29-0)		18509.294	9.295	R 56	(31-1)	712	18505.065	5.065	R 46	(34-2)	727	18500.743	0.745	P 58	(31-1)
		7.328	R 72	(35-2)			3.569	P108	(37-2)		18509.204	9.204	P 53	(31-1)	713	18504.806	4.806	R 60	(28-0)		0.743	R 49	(34-2)	
	18517.221	7.217	P107	(37-2)		18513.504	3.506	P 71	(35-2)	695	18509.111	9.110	P 54	(28-0)		4.601	P134	(36-2)		0.740	R 79	(35-2)		
662	18517.089	7.089	R 52	(28-0)		18513.362	3.426	P168	(34-0)		9.107	R 43	(37-2)	714	18504.604	4.604	R 60	(34-2)						
		7.070	R157	(33-0)	679	18513.143	3.143	P 37	(29-0)		9.107	R 43	(37-2)		4.301	R116	(30-0)	715	18504.389	4.389	P113	(30-0)		
	18517.011	7.012	R 51	(31-1)			3.105	P 37	(34-2)	696	18508.829	8.873	P156	(33-0)		4.300	P113	(30-0)	716	18504.270	4.270	R 59	(31-1)	
663	18516.929	6.934	P 91	(36-2)	680	18512.858	2.868	R 40	(34-2)	697	18508.448	8.448	R 92	(29-0)		4.269	P 57	(28-0)	729	18499.989	9.991	P 92	(29-0)	
		6.922	P 48	(31-1)			2.855	P143	(32-0)	698	18508.328	8.331	P144	(32-0)		4.217	P 56	(31-1)		18499.733	9.964	R 99	(36-2)	
	18516.725	6.615	P 49	(28-0)	681	18512.695	2.751	R 74	(35-2)	699	18508.047	8.056	P 41	(34-2)		4.158	P176	(35-0)		730	18499.733	9.733	R 63	(28-0)
664	18516.614	6.566	P 34	(34-2)		18512.518	2.695	R 55	(28-0)		18508.58	8.587	R 95	(30-2)		4.158	P176	(35-0)	731	18499.557	9.557	P 95	(37-2)	
		6.540	R 56	(36-2)			2.516	R 56	(36-2)		18508.044	8.044	R 76	(35-2)		3.940	R113	(37-2)			9.651	P 47	(34-0)	
665	18516.310	6.350	R 37	(34-2)		18512.474	2.471	R 54	(31-1)	700	18507.971	7.971	R 89	(29-0)		3.943	P 44	(34-2)						
		6.303	R145	(32-0)																				

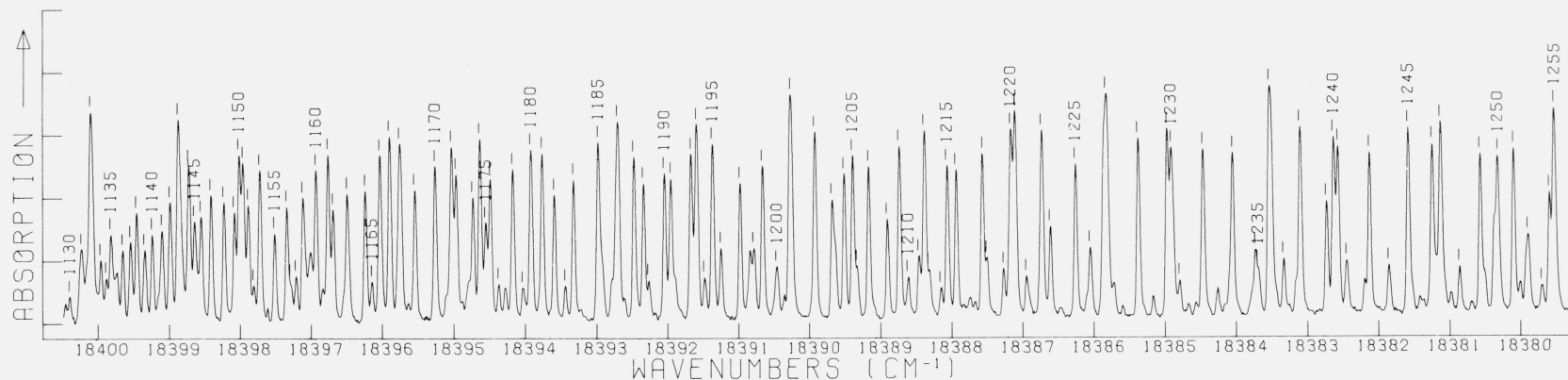
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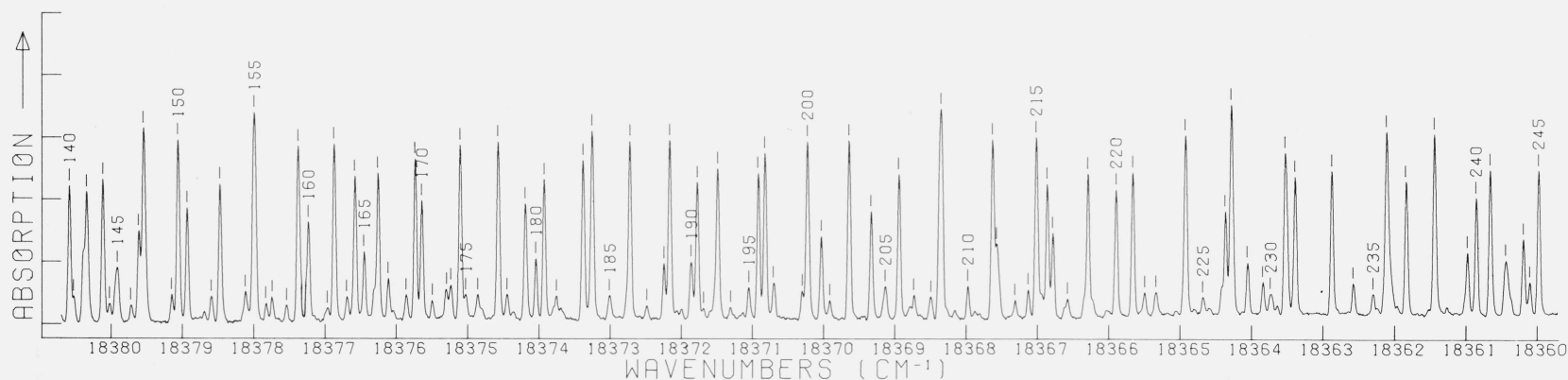
L	NOBS	CM-1	CALC	ASSIGNMENT	LINE	NOBS	CM-1	CALC	ASSIGNMENT	LINE	NOBS	CM-1	CALC	ASSIGNMENT	LINE	NOBS	CM-1	CALC	ASSIGNMENT
795	18480.476	0.476	P150 (32-0)		812	18476.890	6.926	R 24 (30-1)							889	18468.405	4.418	R143 (31-0)	
796	18480.346	0.360	R 18 (30-1)				6.922	R 9 (27-0)		838	18473.201	3.203	P 16 (27-0)		865	18468.927	8.975	R126 (30-0)	
		0.351	P 70 (28-0)				6.898	P172 (34-0)				3.175	R 75 (31-1)				8.936	R106 (29-0)	
		0.338	R 99 (29-0)				6.886	R 75 (28-0)			18473.129	3.132	P 26 (30-1)				8.919	P123 (30-0)	
		0.452	P 15 (30-1)				6.875	R 63 (35-2)				3.101	R 31 (30-1)				8.898	R 34 (30-1)	
		0.117	R105 (36-2)		813	18476.826	6.822	P 6 (27-0)		839	18473.027	0.025	R141 (31-0)		866	18468.738	8.744	R 77 (31-1)	
797	18479.963	9.964	R123 (30-0)				6.809	P 21 (30-1)		840	18472.927	2.937	R 65 (34-2)				8.738	R142 (31-0)	
798	18479.881	9.884	P120 (30-0)		814	18476.694	6.696	R 10 (27-0)				2.927	R 20 (27-0)				8.735	P 31 (30-1)	
		9.859	R 19 (30-1)		815	18476.583	6.584	R 7 (27-0)		841	18472.680	2.691	P 17 (27-0)		867	18468.658	8.673	P 74 (31-1)	
		9.829	R 87 (35-2)		816	18476.540	6.442	R 11 (27-0)				2.697	R 77 (28-0)				8.658	R 27 (27-0)	
		9.761	P 16 (30-1)		817	18476.323	6.332	R 30 (30-0)				2.669	R125 (30-0)		868	18468.458	8.588	R 91 (35-2)	
799	18479.595	9.624	R174 (34-0)				6.317	P 8 (27-0)				2.656	P163 (30-0)		869	18468.349	8.358	R 79 (28-0)	
		9.597	R 72 (31-1)		818	18476.249	6.260	P121 (30-0)		842	18472.607	2.605	P122 (30-0)				8.357	P 24 (27-0)	
		9.517	P 69 (31-1)				6.253	R 25 (30-1)		843	18472.398	2.455	R 30 (30-1)				8.337	P 24 (27-0)	
		9.330	R 20 (30-1)				6.246	P 72 (28-0)				2.446	P 87 (35-2)				18468.153		
		9.256	R153 (32-0)		819	18476.157	6.161	R 12 (27-0)				2.399	R 21 (27-0)				18468.099		
		9.233	P 17 (30-1)				6.131	P 24 (30-1)				2.310	P 27 (30-1)		870	18467.937	7.938	R 28 (27-0)	
800	18479.172	9.174	P 59 (34-2)		820	18476.023	6.024	P 9 (27-0)		844	18472.318	2.318	P 18 (27-0)				7.936	R 35 (30-1)	
801	18478.946	8.946	R 74 (28-0)		821	18475.851	5.855	R165 (33-0)		846	18472.028	2.027	P 74 (28-0)				7.900	P106 (36-2)	
802	18478.769	8.772	R 21 (30-1)				5.853	R 13 (27-0)		847	18471.952	1.952	R105 (29-0)				7.769	P 32 (30-1)	
		8.762	R 62 (34-2)		822	18475.705	5.716	P151 (32-0)		848	18471.842	1.844	R 22 (27-0)		871	18467.695	7.695	P 76 (28-0)	
		8.670	P 18 (30-1)				5.703	P 10 (27-0)		849	18471.584	1.609	R 31 (30-1)		872	18467.604	7.604	P 25 (27-0)	
803	18478.313	8.316	P103 (36-2)		823	18475.517	5.551	R 26 (30-1)				1.584	P 19 (27-0)		873	18467.298	7.340	P164 (33-0)	
		8.186	R 21 (28-0)				5.517	P 31 (27-0)		850	18471.470						7.472	P 29 (27-0)	
		8.186	R 22 (30-1)		824	18475.429	5.425	P 23 (30-1)				1.460	P 28 (30-1)		874	18467.190	7.191	R 29 (27-0)	
		8.079	P 19 (35-2)		825	18475.350	5.355	P 11 (27-0)				1.448	R 90 (35-2)		875	18466.947	6.946	R 36 (30-1)	
		8.034	P 85 (15-0)				5.346	R 74 (31-1)		851	18471.387	1.406	P105 (36-2)		876	18466.844	6.846	P 26 (27-0)	
804	18477.894	7.936	P162 (33-0)				5.340	P 61 (34-2)				1.381	P 63 (34-2)				6.827	R 68 (34-2)	
		7.936	R103 (36-2)		826	18475.270	5.270	R 71 (35-1)		852	18471.260	1.262	P 23 (27-0)				6.774	P 33 (30-1)	
		7.786	P137 (31-0)				5.256	P 86 (35-2)			18471.131	1.138	P 73 (34-0)				6.702	P 35 (30-1)	
		7.748	R 1 (27-0)		827	18475.152	5.154	R 15 (27-0)		853	18470.989	0.989	P 20 (27-0)		877	18466.416	6.483	R 78 (31-1)	
		7.740	R 2 (27-0)		828	18474.941	4.979	P 12 (27-0)				0.975	R 76 (31-1)				6.417	R 30 (27-0)	
		7.728	R 0 (27-0)				4.938	R104 (29-0)		854	18470.920	0.932	P 66 (34-2)				6.415	P 75 (31-1)	
		7.706	3 (27-0)				4.910	R 64 (34-2)				0.921	P152 (32-0)		878	18466.156	6.154	R 80 (28-0)	
806	18477.641	7.643	R 4 (27-0)				4.878	R 30 (30-1)				0.902	P 73 (31-2)				6.093	P153 (32-0)	
		7.606	P 1 (27-0)		829	18474.792	4.820	R 27 (30-1)		855	18470.734	0.734	R 32 (30-1)		879	18466.059	6.059	P 32 (30-1)	
		7.570	R 23 (30-1)				4.797	R 76 (28-0)		856	18470.650	0.652	R 24 (27-0)		880	18465.892	5.927	R 37 (30-1)	
		7.554	R 5 (27-0)				4.763	R 16 (27-0)		857	18470.533	0.580	P 29 (30-1)				5.891	R107 (29-0)	
		7.504	P 2 (27-0)				4.689	P 24 (30-1)				0.542	R166 (33-0)		881	18465.750	5.751	P 34 (30-1)	
808	18477.416	7.486	R 73 (31-1)		830	18474.576	4.576	P 13 (27-0)				0.533	R 78 (28-0)				5.696	R 92 (35-2)	
		7.458	R 2 (30-1)		831	18474.559	4.472	R156 (30-0)		858	18470.365	0.367	P 21 (27-0)		882	18465.614	5.615	R 31 (27-0)	
		7.437	R 6 (27-0)				4.457	P101 (29-0)		859	18470.014	0.015	R 25 (27-0)		883	18465.485	5.485	R 32 (35-2)	
		7.412	P100 (29-0)		832	18474.344	4.345	R 17 (27-0)		860	18469.875	0.875	P 75 (28-0)		884	18465.413	5.413	P104 (29-0)	
		7.408	P 70 (31-1)				4.274	R 89 (35-2)				0.830	R 33 (30-1)				5.340	P174 (34-0)	
		7.375	P 3 (27-0)		833	18474.149	4.145	P 73 (28-0)		861	18469.717	0.718	P 22 (27-0)		885	18465.245	5.249	R127 (30-0)	
		7.293	R 7 (27-0)				4.156	P 14 (27-0)				0.672	P 30 (30-1)				5.246	P 28 (27-0)	
		7.280	R140 (31-0)				4.061	R 28 (30-1)				0.653	R155 (32-0)				5.206	P 66 (34-2)	
		7.277	P 60 (34-2)		834	18473.900	3.925	P 25 (30-1)				0.620	P 34 (30-1)				5.202	R 37 (27-0)	
		7.218	P 4 (27-0)				3.900	R 18 (27-0)		862	18469.349	0.354	P 64 (34-2)				5.194	R167 (33-0)	
810	18477.218	7.212	R 8 (27-0)				3.859	R175 (34-0)				0.350	R 26 (27-0)		886	18464.970	4.970	P140 (31-0)	
811	18477.120	7.121	R 8 (27-0)				3.688	P 15 (27-0)		863	18469.273	0.274	P139 (31-0)				4.878	R 38 (30-1)	
		7.064	R 88 (35-2)		835	18473.687	3.687	P138 (31-0)				0.274	P 23 (27-0)		887	18464.785	4.801	R156 (32-0)	
		7.034	P 5 (27-0)		836	18473.546	3.546	P138 (31-0)		864	18469.039	0.041	P 23 (27-0)				4.785	R 32 (27-0)	
					837	18473.426	3.427	R 19 (27-0)							888	18464.717	4.717	P 35 (30-1)	
							3.376	P 62 (34-2)									4.698	P 35 (30-1)	



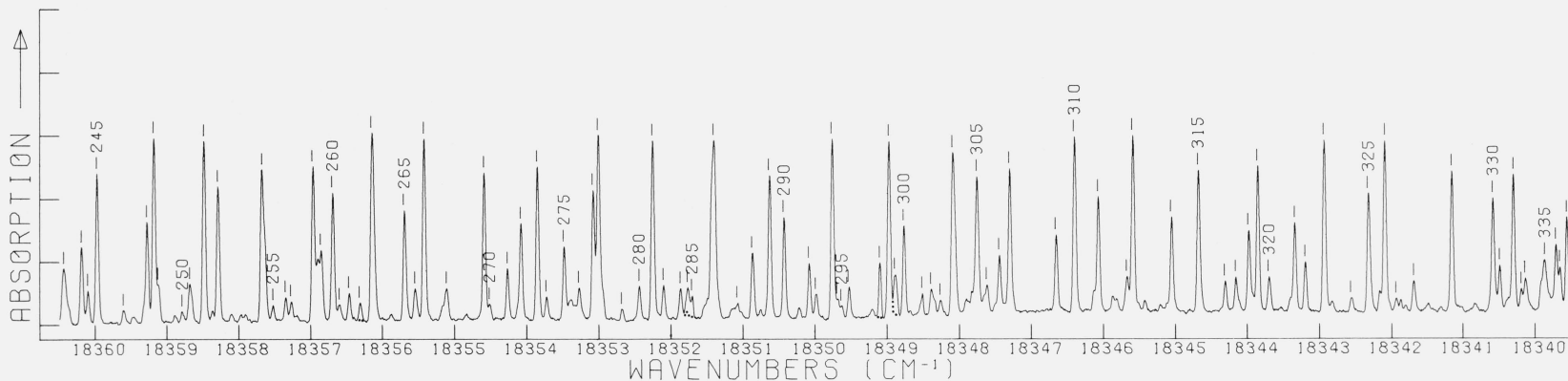
LINE	OBS	CM-1	CALC	ASSIGNMENT	LINE	OBS	CM-1	CALC	ASSIGNMENT	LINE	OBS	CM-1	CALC	ASSIGNMENT	LINE	OBS	CM-1	CALC	ASSIGNMENT
990	18440.391	0.447	R115 (29-0)		1004	18436.743	6.743	P 89 (28-0)		1023	18432.506	2.505	P 58 (30-1)		1051	18423.551	3.564	R120 (29-0)	
		0.389	P 50 (27-0)		1005	18436.621	6.670	P113 (29-0)			18432.287	2.343	R173 (33-0)				3.546	P 94 (28-0)	
991	18440.240	0.246	P 45 (33-2)				6.618	R 56 (27-0)				2.286	R 94 (28-0)				3.527	P172 (33-0)	
		0.227	P169 (33-0)		1006	18436.414	6.406	P159 (32-0)				2.001	R 83 (34-2)				3.473	P 63 (30-1)	
	18440.103	0.135	P 77 (34-2)		1007	18436.167	6.167	R 59 (30-1)		1024	18431.980	1.978	R 59 (27-0)				3.412	R 95 (31-1)	
		0.094	R 48 (33-2)				6.165	P 99 (35-2)			18431.638	1.698	R103 (35-2)				3.404	P 92 (31-1)	
992	18440.017	0.020	R161 (32-0)		1008	18435.967	5.966	P 53 (27-0)				1.652	R 92 (31-1)		1039	18427.174	7.173	P 61 (30-1)	
		0.019	R 91 (28-0)				5.914	P 56 (30-1)				1.629	P 89 (31-1)		1040	18427.090	7.088	R 62 (27-0)	
		9.983	P112 (29-0)			18435.844	5.843	P 48 (33-2)		1025	18431.551	1.550	P 91 (28-0)		1041	18426.993	7.001	R119 (29-0)	
993	18439.574	9.617	R 89 (31-1)		1009	18435.674	5.676	R 51 (33-2)		1026	18431.297	1.339	P160 (32-0)				6.986	R 96 (28-0)	
		9.582	P 86 (31-1)		1010	18435.100	5.165	P 79 (34-2)				1.295	P 56 (27-0)				6.816	R 85 (34-2)	
		9.572	R 54 (27-0)				5.099	R 57 (27-0)			18431.165	1.165	P 51 (33-2)				6.740	R174 (33-0)	
		9.539	R 80 (34-2)			18434.958	4.960	R162 (32-0)		1027	18431.014	1.018	R 62 (30-1)		1042	18426.550	6.550	P116 (29-0)	
994	18439.455	9.454	R 57 (30-1)				4.955	R102 (35-2)				0.983	R 54 (33-2)		1043	18426.376	6.374	P 59 (27-0)	
	18439.373	9.370	P 98 (35-2)		1011	18434.893	4.893	R 93 (28-0)		1028	18430.757	0.757	P 59 (30-1)				6.353	P102 (35-2)	
995	18439.296	9.296	P 88 (28-0)			18434.696	4.696	P170 (33-0)		1029	18430.378	0.408	R118 (29-0)		1044	18426.246	6.266	R137 (30-0)	
	18439.205	9.207	P 54 (30-1)			18434.548	4.546	R 82 (34-2)				0.375	R 60 (27-0)				6.243	P 93 (28-0)	
996	18438.944	8.942	P 51 (27-0)		1012	18434.438	4.480	R 60 (30-1)				0.344	P133 (30-0)				6.236	P161 (32-0)	
	18438.809	8.809	P 46 (33-2)				4.437	P 54 (27-0)		1030	18430.069	0.067	R136 (30-0)				6.211	P 54 (33-2)	
	18438.647	8.652	R 49 (33-2)		1013	18434.323	4.342	P132 (30-0)		1031	18429.954	9.953	P115 (29-0)				6.189	R 94 (31-1)	
997	18438.459	8.460	P146 (31-0)				4.337	R 91 (31-1)				9.865	R163 (32-0)		1045	18426.012	6.014	R 57 (33-2)	
998	18438.302	8.309	P131 (30-0)				4.315	R135 (30-0)		1032	18429.871	9.865	R163 (32-0)		1046	18425.606	5.605	R 65 (30-1)	
		8.292	R134 (30-0)				4.314	P 49 (33-2)			18429.673	9.682	P101 (35-2)		1047	18425.404	5.402	R 63 (27-0)	
999	18438.110	8.178	R101 (35-2)				4.311	P 88 (31-1)				9.657	R 95 (28-0)				5.337	P 62 (30-1)	
		8.109	R 55 (27-0)		1014	18434.223	4.224	P 57 (30-1)				9.544	P 52 (33-2)				5.085	R105 (35-2)	
		7.909	R172 (33-0)		1015	18434.161	4.161	P 90 (28-0)			18429.544	9.544	P 52 (33-2)				4.842	P 83 (34-2)	
1000	18437.814	7.825	R 58 (30-1)				4.142	R 52 (33-2)		1033	18429.427	9.425	R 84 (34-2)				4.763	P149 (31-0)	
		7.805	R149 (31-0)		1016	18433.929	3.928	P147 (31-0)			18429.360	9.362	P148 (31-0)				4.736	R164 (32-0)	
	18437.666	7.665	P 78 (34-2)		1017	18433.785	3.784	R117 (29-0)		1034	18429.245	9.243	R 63 (30-1)		1048	18424.681	4.679	P 60 (27-0)	
1001	18437.575	7.575	P 55 (30-1)		1018	18433.553	3.552	R 58 (27-0)				9.130	P171 (33-0)				4.499	P 55 (33-2)	
1002	18437.469	7.471	R 92 (28-0)		1019	18433.327	3.327	P114 (29-0)			18429.131	9.130	P 60 (30-1)		1049	18424.496	4.296	R 58 (33-2)	
		7.468	P 52 (27-0)			18433.254	3.254	R150 (31-0)		1035	18428.912	8.980	P 93 (31-1)				4.293	R 97 (28-0)	
	18437.342	7.341	P 47 (33-2)		1020	18432.882	2.928	P100 (35-2)				8.936	R 93 (31-1)				4.176	R 86 (34-2)	
1003	18437.131	7.179	R 50 (33-2)				2.879	P 55 (27-0)				8.918	P 90 (31-1)				4.052	R152 (31-0)	
		7.131	R116 (29-0)		1021	18432.760	2.764	R 61 (30-1)		1036	18428.747	8.745	R 61 (27-0)		1050	18423.691	3.742	R 66 (30-1)	
	18437.061	7.058	R 81 (34-2)				2.755	P 50 (33-2)			18428.670	8.670	R151 (31-0)				3.689	R 64 (27-0)	
	18436.972	6.992	R 90 (31-1)			18432.631	2.632	P 80 (34-2)			18428.405	8.408	R104 (35-2)						
		6.962	P 87 (31-1)		1022	18432.579	2.578	R 53 (33-2)									9.426	P 63 (27-0)	
																	9.401	R153 (31-0)	



LINE	OBS	CM-1	CALC	ASSIGNMENT	LINE	OBS	CM-1	CALC	ASSIGNMENT	LINE	OBS	CM-1	CALC	ASSIGNMENT	LINE	OBS	CM-1	CALC	ASSIGNMENT
	18400,466		0.466	R157 (31-0)	1154	18397,736		7.738	R 15 (26-0)	1181	18393,771		3.819	P 94 (34-2)	1204	18389,528		9.550	P168 (32-0)
1130	18400,405		0.406	P 28 (29-1)				7.729	P 31 (29-1)				3.771	P 76 (27-0)				9.526	P 26 (26-0)
1131	18400,239		0.264	R 1 (29-0)	1155	18397,527		7.528	P 12 (26-0)				3.762	P 35 (29-1)	1205	18389,409		9.405	P 28 (27-0)
			0.258	R 2 (26-0)	1156	18397,355		7.356	R 16 (26-0)	1182	18393,601		3.601	P 20 (26-0)	1206	18389,350		9.344	P 39 (29-1)
			0.243	R 0 (26-0)	1157	18397,302		7.301	P 69 (33-2)	1183	18393,447				1207	18389,185		9.184	R 30 (26-0)
			0.225	R 2 (26-0)	1158	18397,224		7.223	P141 (30-0)	1184	18393,332		3.332	R 24 (26-0)	1208	18389,920		9.920	P 27 (26-0)
			0.200	P166 (32-0)	1159	18397,130		7.131	P 13 (26-0)				3.222	R170 (32-0)	1209	18388,754		8.753	P 23 (26-0)
1132	18400,108		0.166	R 4 (26-0)		18397,025		7.025	R144 (30-0)	1185	18392,989		3.006	R 97 (34-2)	1210	18388,627		8.625	P143 (30-0)
			0.126	P100 (31-1)				7.079	P101 (31-1)				2.989	P 21 (26-0)	1211	18388,477		8.483	R 43 (29-1)
			0.121	P 1 (26-0)				7.040	R 35 (29-1)				2.989	R 39 (29-1)				8.469	R146 (30-0)
			0.109	P 73 (27-0)				7.037	R104 (31-1)				2.940	P142 (30-0)	1212	18388,400		8.400	P 73 (33-2)
			0.091	R103 (31-1)				7.008	R 72 (33-2)				2.922	P 71 (33-2)				8.399	P 31 (26-0)
			0.079	R 5 (26-0)	1160	18396,947		6.947	R 17 (26-0)		18392,795		2.797	R145 (30-0)	1213	18388,336		8.168	P 40 (29-1)
			0.062	P 2 (26-0)		18396,850		6.852	R 79 (30-1)				2.742	R108 (29-0)	1214	18388,161		8.087	R 76 (33-2)
1133	18399,967		9.966	R 6 (26-0)	1161	18396,778		6.800	P 93 (34-2)	1186	18392,712		2.708	R 25 (26-0)	1215	18388,081		8.078	R 82 (27-0)
1134	18399,888		9.891	P 3 (26-0)				6.779	P 32 (29-1)				2.700	P 36 (29-1)				8.078	R 82 (27-0)
1135	18399,826		9.826	R 7 (26-0)				6.775	R 78 (27-0)				2.615	R 74 (33-2)	1216	18387,953		7.953	R 28 (26-0)
			9.781	R 32 (29-1)	1162	18396,707		6.707	P 14 (26-0)				2.483	R 80 (27-0)				7.847	R171 (32-0)
			9.749	P 92 (34-2)	1163	18396,510		6.565	P 76 (30-1)	1188	18392,350		2.353	R180 (33-0)				7.761	P 96 (34-2)
	18399,750		9.736	P 4 (26-0)				6.511	R 18 (26-0)				2.350	P 22 (26-0)				7.752	P104 (31-1)
1136	18399,658		9.659	R 8 (26-0)				6.478	P155 (31-0)	1189	18392,275		2.272	R 81 (30-1)		18387,693		7.691	R171 (31-1)
1137	18399,550		9.550	P 29 (29-1)	1164	18396,257		6.257	P 15 (26-0)	1190	18392,550		2.057	P105 (30-0)	1217	18387,586		7.586	P 32 (26-0)
			9.542	P 29 (29-1)	1165	18396,163				1191	18391,968		1.984	R 78 (30-1)				7.574	R 83 (30-1)
1138	18399,464		9.465	R 9 (26-0)	1166	18396,051		6.070	R 36 (29-1)				1.966	P105 (28-0)	1218	18387,521		7.518	R130 (29-0)
			9.444	P 68 (33-2)				6.048	R 19 (26-0)				1.905	R 40 (29-1)	1219	18387,285		7.286	R 44 (29-1)
1139	18399,349		9.345	P 6 (26-0)				6.001	R 96 (34-2)	1192	18391,685		1.685	P 23 (26-0)				7.286	R 40 (30-1)
1140	18399,246		9.244	R 10 (26-0)	1167	18395,914		5.911	P 75 (27-0)				1.647	P156 (31-0)	1220	18387,184		7.181	P 79 (27-0)
1141	18399,206		9.159	R 71 (33-2)	1168	18395,770		5.802	P 33 (29-1)	1193	18391,606		1.609	P 37 (29-1)	1221	18387,125		7.126	P 29 (26-0)
1142	18399,108		9.107	P 18 (26-0)				5.779	P 5 (27-0)				1.602	P 77 (27-0)				7.116	P 79 (26-0)
			9.097	R 78 (30-1)				5.756	R107 (28-0)	1194	18391,489				1222	18386,964		6.964	P 41 (29-1)
1142	18398,996		8.997	R 11 (26-0)		18395,649		5.646	R158 (31-0)	1195	18391,379		1.379	R 27 (26-0)				6.919	R 99 (34-2)
			8.964	R 95 (34-2)	1169	18395,559		5.559	R 20 (26-0)				1.260	R129 (29-0)	1223	18386,747		6.783	P157 (31-0)
1143	18398,880		8.896	R 33 (29-1)	1170	18395,276		5.275	P 17 (26-0)	1196	18391,261		0.992	P 24 (26-0)				6.747	R 33 (26-0)
			8.879	R 77 (27-0)	1171	18395,045		5.127	P 70 (33-2)	CALC	*****		0.891	P103 (31-1)	1224	18386,625		6.625	R110 (28-0)
			8.847	P 8 (26-0)				5.071	R 37 (29-1)	CALC	*****		0.853	P126 (29-0)				6.492	R181 (33-0)
1144	18398,731		8.811	P 75 (30-1)				5.043	R 21 (26-0)	CALC	*****		0.837	R106 (31-1)	1225	18386,273		6.272	P 30 (26-0)
			8.749	R106 (28-0)	1172	18394,981		4.980	P104 (29-0)	CALC	*****		0.806	P 95 (34-2)	1226	18386,067		6.067	R 45 (29-1)
			8.722	R 12 (26-0)				4.972	R128 (29-0)	1198	18390,797		0.794	R159 (31-0)				6.066	R 45 (29-1)
1145	18398,652		8.653	R127 (29-0)		18394,894		4.895	P167 (32-0)				0.793	R 41 (29-1)	1227	18385,844		5.908	R160 (31-0)
			8.649	P 30 (29-1)		18394,806		4.827	R 73 (33-2)	1199	18390,676		0.686	P 72 (33-2)				5.880	R 34 (26-0)
1146	18398,559		8.563	R169 (32-0)				4.796	P 34 (29-1)				0.675	R 28 (26-0)				5.846	P107 (28-0)
			8.557	P 9 (26-0)	1173	18394,745		4.744	P 18 (26-0)	1200	18390,475		0.491	P 38 (29-1)				5.833	R 83 (27-0)
1147	18398,420		8.421	R 13 (26-0)	1174	18394,645		4.643	R 79 (27-0)		18390,374		0.372	R 75 (33-2)				5.799	R 77 (33-2)
1148	18398,239		8.241	P 11 (26-0)	1175	18394,563		4.571	R 80 (31-0)	1201	18390,285		0.370	R 81 (27-0)	1228	18385,735		5.799	R 81 (27-0)
			8.235	P24 (29-0)				4.559	P125 (29-0)				0.273	P 25 (26-0)				5.391	P 31 (26-0)
			8.176	R179 (33-0)	1176	18394,500		4.499	R 22 (26-0)	1202	18389,943		0.979	R 98 (34-2)	1229	18385,183		5.181	R 48 (30-1)
1149	18398,092		8.093	R 14 (26-0)	1177	18394,382							0.943	R 39 (26-0)	1230	18389,987		4.987	R 35 (26-0)
1150	18398,027		8.024	P 74 (27-0)		18394,292		4.289	P 77 (30-1)				0.938	R 62 (30-1)	1230	18389,929		4.928	P 80 (27-0)
1151	18397,974		7.982	R 34 (29-1)	1178	18394,186		4.186	P 19 (26-0)	1203	18389,698		0.698	R109 (28-0)				4.892	R 81 (30-1)
			7.969	P103 (26-0)	1179	18394,043		4.044	R 38 (29-1)				0.652	R 42 (25-1)	1231	18384,808		4.806	R 46 (29-1)
1152	18397,898		7.898	P 11 (26-0)				4.000	P02 (31-1)				0.650	P 79 (30-1)				4.683	P 97 (34-2)
1153	18397,822				1180	18393,930		3.953	R103 (31-1)									4.581	P105 (31-1)
								3.929	R 23 (26-0)										

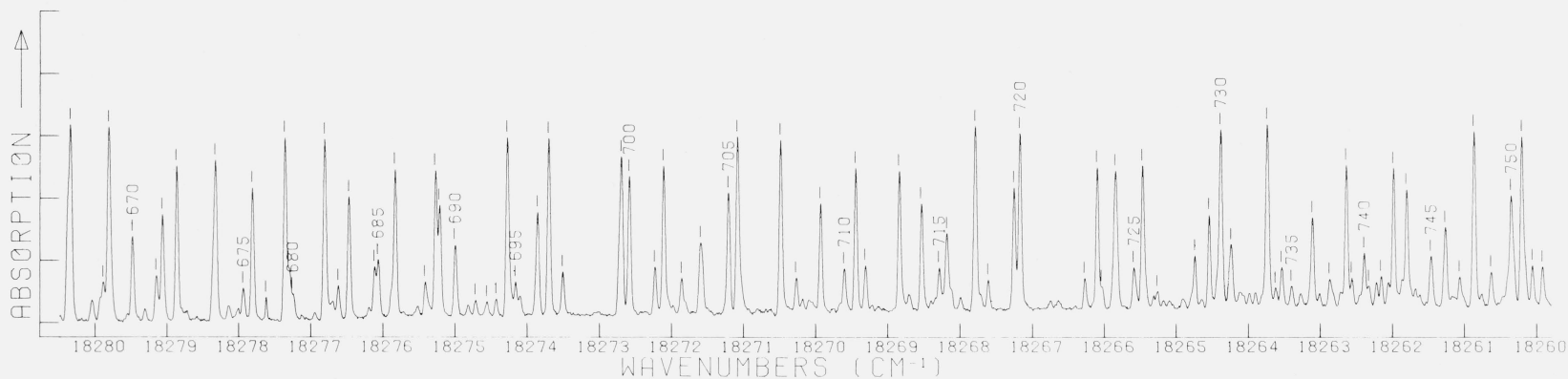


LINE	OBS CM-1	CALC	ASSIGNMENT	LINE	OBS CM-1	CALC	ASSIGNMENT	LINE	OBS CM-1	CALC	ASSIGNMENT	LINE	OBS CM-1	CALC	ASSIGNMENT
140	18380.583	0.583	P 36 (26-0)	164	18376.574	6.621	P 78 (33-2)	187	18372.479	2.481	P 86 (30-1)	209	18368.353	8.373	P 87 (27-0)
141	18380.523	0.518	P 46 (29-1)			6.574	R 87 (27-0)	188	18372.240	2.242	R134 (29-0)			8.345	R135 (29-0)
142	18380.341	0.391	R112 (28-0)	165	18376.446	6.447	P110 (28-0)			2.237	R 55 (29-1)			8.343	R 50 (26-0)
		0.339	P 82 (27-0)	166	18376.250	6.310	P 49 (29-1)	189	18372.159	2.159	R 47 (26-0)			8.266	P110 (31-1)
		0.304	R 86 (30-1)			6.257	R 81 (33-2)			2.049	P101 (34-2)			8.160	R113 (31-1)
143	18380.115	0.115	R 40 (26-0)			6.251	P 40 (26-0)			1.991	P160 (31-0)	210	18367.973	7.975	P132 (29-0)
144	18380.020	0.017	P 83 (30-1)	167	18376.105	6.107	R133 (29-0)	190	18371.858	1.864	P131 (29-0)			7.877	R105 (34-2)
145	18379.911	9.941	R132 (29-0)			6.036	R162 (31-0)			1.845	P 52 (29-1)			7.817	P172 (32-0)
		9.900	P145 (30-0)	168	18375.855			191	18371.774	1.774	R 89 (27-0)	211	18367.629	7.630	P 47 (26-0)
146	18379.716	9.717	R148 (30-0)	169	18375.731	5.731	R 44 (26-0)			1.683	P 80 (33-2)	212	18367.573	7.594	R 91 (30-1)
147	18379.608	9.609	P109 (28-0)			5.723	P130 (29-0)	192	18371.684	1.683	P109 (31-1)			7.569	R116 (28-0)
148	18379.542	9.551	P129 (29-0)	170	18375.638	5.637	P 84 (27-0)	193	18371.487	1.507	R174 (32-0)			7.533	R 58 (29-1)
		9.540	P 37 (26-0)	171	18375.492	5.490	P146 (30-0)			1.493	R112 (31-1)	213	18367.310	7.309	P 88 (30-1)
		9.505	R 50 (29-1)	172	18375.296	5.310	R 88 (30-1)			1.487	P 44 (26-0)	214	18367.126	7.125	P 55 (29-1)
149	18379.145	9.144	P 47 (29-1)			5.292	R149 (30-0)	194	18371.303	1.303	R 83 (33-2)	215	18367.016	7.017	R 51 (26-0)
150	18379.059	9.059	R 41 (26-0)	173	18375.231	5.256	P100 (34-2)			1.132	R104 (34-2)			6.993	P161 (31-0)
		9.042	P 77 (33-2)			5.229	R 53 (29-1)	195	18371.048	1.049	R163 (31-0)	216	18366.861	6.862	R 91 (27-0)
151	18378.931	8.931	R 86 (27-0)	174	18375.100	5.100	P 41 (26-0)			1.047	P147 (30-0)	217	18366.781	6.784	P113 (28-0)
152	18378.754	8.754	P170 (32-0)	175	18375.018	5.023	P 85 (30-1)	196	18370.915	0.914	R 48 (26-0)	218	18366.573	6.621	P 82 (33-2)
153	18378.589	8.688	R 80 (33-2)	176	18374.852	4.885	P108 (31-1)	197	18370.822	0.836	R150 (30-0)			6.573	P148 (30-0)
						4.850	P 50 (29-1)			0.823	P 86 (27-0)	219	18366.291	6.347	R151 (30-0)
153	18378.470	8.471	P 38 (26-0)			4.795	R111 (31-1)			0.819	R115 (28-0)			6.291	P 48 (26-0)
		8.431	P 99 (34-2)	177	18374.568	4.567	R 45 (26-0)	198	18370.696	0.697	R 56 (29-1)			6.223	R 85 (33-2)
154	18378.111	8.148	P107 (31-1)	178	18374.439			199	18370.300	0.300	P 53 (29-1)			6.027	R164 (31-0)
		8.108	R 51 (29-1)			4.355	R103 (34-2)	200	18370.228	0.228	P 45 (26-0)			5.989	R175 (32-0)
155	18377.990	8.065	R110 (31-1)	179	18374.187	4.188	R 88 (27-0)			0.195	R 90 (30-1)	220	18365.897	5.908	R 59 (29-1)
		8.002	P 83 (27-0)			4.167	P 79 (33-2)			0.034	P112 (28-0)			5.896	P 88 (27-0)
156	18377.823	7.822	R 87 (30-1)	180	18374.038	4.039	R114 (28-0)	201	18370.032	9.910	P 87 (30-1)	221	18365.663	5.664	R 52 (26-0)
157	18377.739	7.741	P 48 (29-1)	181	18373.922	3.923	P 42 (26-0)	202	18369.910	9.910	P 87 (30-1)	222	18365.492	5.538	P103 (34-2)
158	18377.536	7.545	R102 (34-2)	182	18373.748	3.796	R 82 (33-2)	203	18369.643	9.642	R 49 (26-0)			5.494	P 56 (29-1)
		7.535	P 84 (30-1)			3.747	R 54 (29-1)	204	18369.331	9.332	R 90 (27-0)				
159	18377.373	7.374	P 39 (26-0)	183	18373.375	3.376	R 46 (26-0)	205	18369.132	9.168	P 81 (33-2)	223	18365.334		
160	18377.230	7.230	R113 (28-0)			3.362	P 51 (29-1)	206	18368.942	8.943	P 46 (26-0)			4.962	R 92 (30-1)
161	18376.961	6.989	R173 (32-0)	184	18373.248	3.303	P171 (32-0)			8.810	P102 (34-2)			4.924	P 49 (26-0)
		6.955	P159 (31-0)			3.255	P111 (28-0)			8.779	R 84 (33-2)			4.910	P111 (31-1)
		6.867	R 43 (26-0)			3.244	P 85 (27-0)	207	18368.728	8.727	P 54 (29-1)	225	18364.795	4.796	R114 (31-1)
162	18376.868	6.867	R 43 (26-0)	185	18373.001			208	18368.495					4.679	P 89 (30-1)
163	18376.685	6.683	R 52 (29-1)	186	18372.718	2.767	R 89 (30-1)					226	18364.364	4.418	R136 (29-0)
						2.718	P 43 (26-0)							4.364	R 92 (27-0)

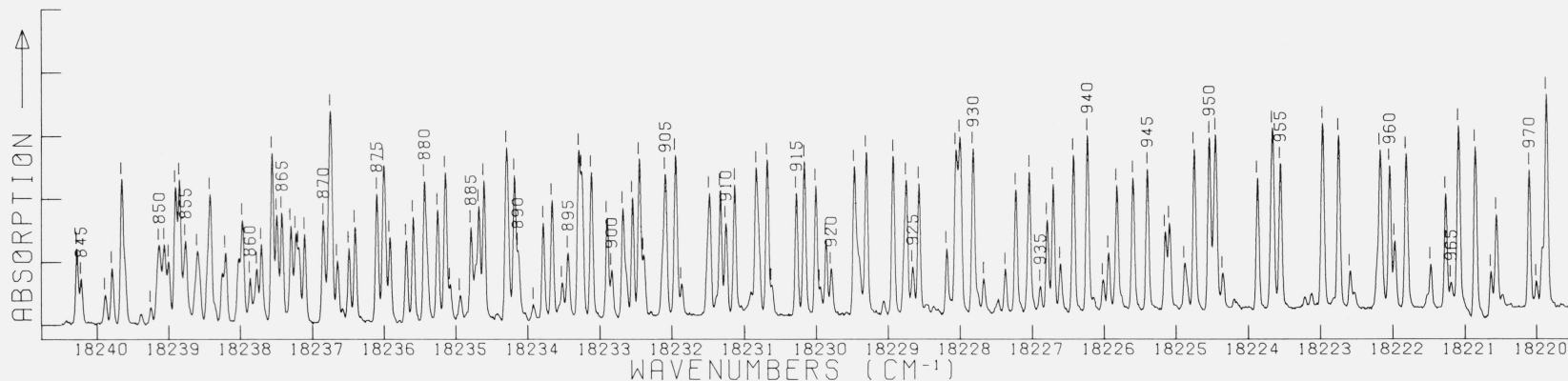


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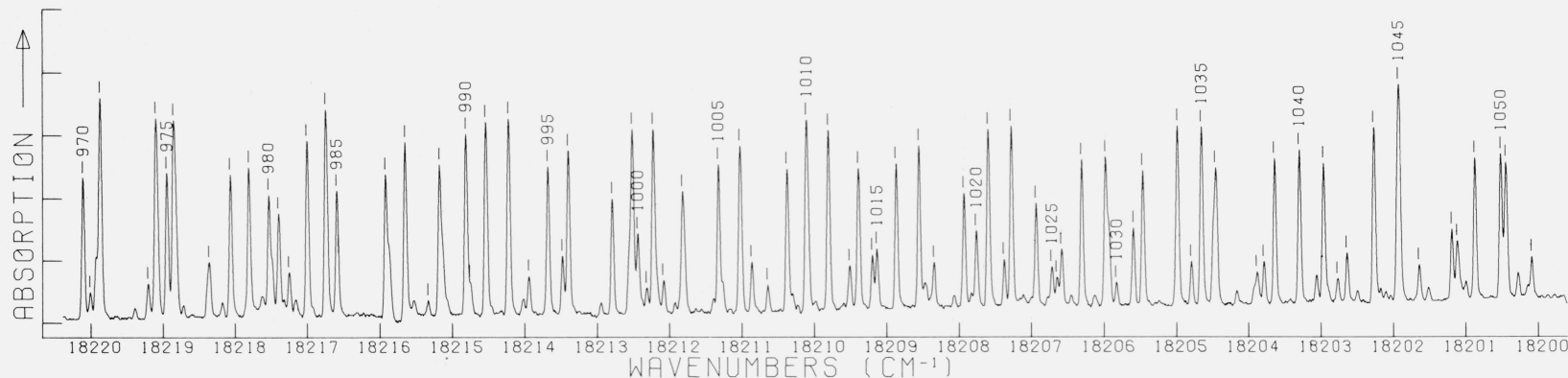
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242	18360.440		0.460	R137 (29-0)	264	18356.152	6.155	P 55 (26-0)	285	18351.712	*****	ARTIFACT	306	18347.620	7.663	P116 (31-1)	323	18342.829	2.830	R100 (30-1)
			0.435	R176 (32-0)			6.123	P 86 (33-2)	286	18351.410	1.446	R 97 (27-0)			7.617	P 66 (29-1)	324	18342.562	2.562	P 97 (30-1)
			0.431	P 59 (29-1)			6.122	P135 (29-0)			1.421	P 64 (29-1)	307	18347.448	7.506	R119 (31-1)	325	18342.326	2.329	P 97 (27-0)
243	18360.195	0.195	P115 (28-0)			18355.885	5.883	R166 (31-0)			1.404	P 58 (26-0)			7.454	R 92 (33-2)		2.295	P 91 (33-2)	
244	18360.104	0.103	P134 (29-0)		265	18355.702	5.704	P 92 (27-0)			1.355	R 97 (30-1)			7.448	R122 (28-0)	326	18342.101	2.173	R 72 (29-1)
245	18359.979	9.979	R 56 (26-0)				5.687	R 89 (33-2)	287	18351.081	1.175	P115 (31-1)	308	18347.305	7.305	R 64 (26-0)				
246	18359.606	9.609	R 94 (30-1)		266	18355.555	5.557	R 65 (29-1)			1.079	P 94 (30-1)	309	18346.661	6.664	P119 (28-0)	327	18341.942	2.102	R 67 (26-0)
247	18359.282	9.328	P 91 (30-1)				5.526	P106 (34-2)		18351.039	1.026	R118 (31-1)			6.663	P165 (31-0)				
		9.282	R 94 (27-0)		267	18355.431	5.431	R 59 (26-0)	288	18350.874	0.876	R121 (28-0)	310	18346.408	6.409	P 61 (26-0)		1.808	R 94 (33-2)	
248	18359.187	9.186	P 53 (26-0)		268	18355.118	5.111	P 62 (29-1)		18350.761	0.759	R167 (31-0)	311	18346.079	6.141	R 70 (29-1)	328	18341.697	1.695	P 69 (29-1)
249	18359.124	9.122	R 63 (29-1)			18354.843	4.846	R177 (32-0)	289	18350.637	0.686	P 88 (33-2)			6.080	R 99 (27-0)		1.496	P166 (31-0)	
		8.896	P105 (34-2)		269	18354.598	4.655	P114 (31-1)			0.637	R 62 (26-0)		18345.878			329	18341.168	1.169	P 64 (26-0)
							4.598	P 56 (26-0)	290	18350.437	0.439	P 94 (27-0)		18345.822				18340.849		
250	18358.792	8.794	P 85 (33-2)		270	18354.520	4.516	R117 (31-1)		18350.232	0.230	R 91 (33-2)	312	18345.677	5.702	R 99 (30-1)	330	18340.598	0.600	R101 (27-0)
251	18358.685	8.687	P 60 (29-1)		271	18354.272	4.274	R120 (28-0)	291	18350.087	0.091	P118 (28-0)			5.672	P 67 (29-1)	331	18340.502	0.547	P118 (31-1)
252	18358.490	8.490	R 57 (26-0)		272	18354.086	4.136	R 96 (30-1)		18349.993	9.993	R 68 (29-1)	313	18345.598	5.601	R168 (31-0)		0.503	R124 (28-0)	
CALC	*****	8.368	R 38 (33-2)				4.086	R 96 (27-0)	293	18349.767	9.766	P 59 (26-0)			5.598	R 65 (26-0)	332	18340.313	0.409	R169 (31-0)
253	18358.293	8.295	P 91 (27-0)		273	18353.858	3.860	R 60 (26-0)	294	18349.694				18345.431	5.431	P 96 (30-1)		0.370	R121 (31-1)	
	18358.103	8.105	P113 (31-1)				3.859	P 93 (30-1)	295	18349.636				18345.218	5.221	P109 (34-2)		0.314	R 68 (26-0)	
	18357.973	7.974	R116 (31-1)		274	18353.730	3.731	R 66 (29-1)	296	18349.534	9.533	P 65 (29-1)	314	18345.060	5.123	P 90 (33-2)	333	18340.201	0.203	R142 (29-0)
	18357.911	7.915	R108 (34-2)		275	18353.488	3.489	P117 (28-0)		18349.214	9.220	R178 (32-0)			5.061	P 96 (27-0)	334	18340.143	0.146	R 73 (29-1)
254	18357.683	7.684	P 54 (26-0)		276	18353.380	3.420	P 87 (33-2)	297	18349.109	*****	ARTIFACT	315	18344.689	4.689	P 62 (26-0)	335	18339.879	9.929	R101 (30-1)
		7.642	R119 (28-0)			18353.345			298	18348.984	8.985	R 63 (26-0)			4.647	R 93 (33-2)		9.886	P139 (29-0)	
255	18357.526	7.527	P150 (30-0)		277	18353.280	3.281	P 63 (29-1)	299	18348.896	*****	ARTIFACT	316	18344.314	4.317	R141 (29-0)		9.859	R 1 (28-1)	
256	18357.351	7.354	R 64 (29-1)		278	18353.086	3.086	P 93 (27-0)	300	18348.776	8.777	R 98 (27-0)	317	18344.168	4.171	R 71 (29-1)		9.850	R 2 (28-1)	
257	18357.273	7.271	R153 (30-0)		279	18353.015	3.015	P 57 (26-0)		18348.689	8.689	P108 (34-2)			4.121	P117 (31-1)		9.840	R 0 (28-1)	
258	18356.973	6.974	R 58 (26-0)		280	18352.684	2.684	R154 (30-0)	301	18348.523	8.543	R 98 (30-1)	318	18343.989	3.991	P138 (29-0)		9.814	R 3 (28-1)	
259	18356.859	6.913	P 61 (29-1)				2.956	P151 (30-0)	302	18348.395	8.399	R140 (29-0)			3.990	R123 (28-0)	336	18339.719	9.750	R 4 (28-1)
		6.896	P163 (31-0)		279	18352.684	2.684	R154 (30-0)			8.352	P152 (30-0)			3.953	R120 (31-1)		9.721	P121 (28-0)	
		6.887	R 95 (30-1)		280	18352.449	2.450	R139 (29-0)	303	18348.266	8.270	P 95 (30-1)	319	18343.864	3.864	R 66 (26-0)		9.719	P 1 (28-1)	
		6.857	P116 (28-0)		281	18352.262	2.262	R 61 (26-0)	304	18348.096	8.101	P 60 (26-0)	320	18343.705	3.717	P153 (30-0)	337	18339.663	9.664	P 70 (29-1)
260	18356.698	6.698	R 95 (27-0)		282	18352.109	2.124	P107 (34-2)			8.082	R 69 (29-1)			3.698	P 68 (29-1)		9.662	P 98 (30-1)	
261	18356.608	6.609	P 92 (30-1)				2.109	P136 (29-0)			8.066	P137 (29-0)		18343.552	3.559	R179 (32-0)		9.659	R 5 (28-1)	
262	18356.469	6.471	R138 (29-0)		283	18351.876	1.877	R 67 (29-1)			8.065	R155 (30-0)	321	18343.352	3.413	R156 (30-0)		9.617	P 2 (28-1)	
263	18356.321	*****	ARTIFACT		CALC	*****	1.796	P164 (31-0)		18347.917	7.920	P 89 (33-2)			3.354	R100 (27-0)	338	18339.566	9.569	P 98 (27-0)
					284	18351.771	*****	ARTIFACT	305	18347.761	7.764	P 95 (27-0)	322	18343.203	3.208	P120 (28-0)		9.540	R 6 (28-1)	
													323	18342.943	2.943	P 63 (26-0)				



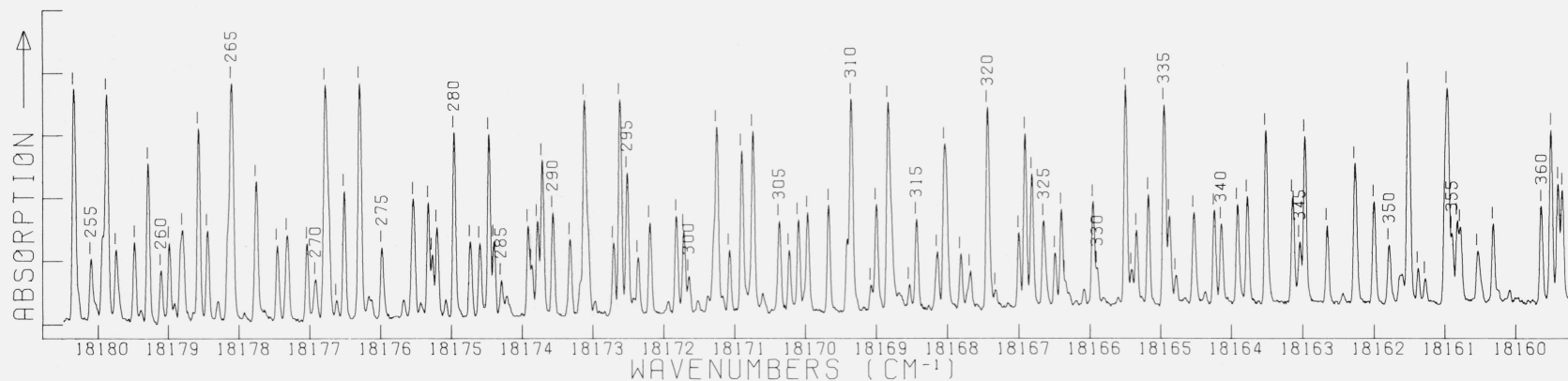
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667	18280.348	0.388	P 92 (26-0)					5.589	P112 (33-2)				0.281	R 72 (28-1)				5.320	P156 (29-0)
		0.347	P 53 (25-0)					5.266	R121 (30-1)				0.260	P168 (30-0)				5.269	P100 (29-1)
	18280.040	0.036	R 98 (29-1)					5.423	P 66 (28-1)										
668	18279.890	9.942	R169 (30-0)		687	18275.421		5.388	P167 (30-0)										
		9.888	P137 (28-0)					5.347	P118 (30-1)										
		9.818	P 57 (25-0)					5.279	R 60 (25-0)										
669	18279.814	9.790	R 67 (28-1)		688	18275.278		5.220	P113 (30-0)										
		9.440	R 95 (29-1)		690	18275.021		5.099	P119 (27-0)										
670	18279.485	9.487	R121 (27-0)		691	18274.825		4.827	R170 (30-0)										
		9.310	R156 (29-0)		692	18274.726		4.723	R157 (29-0)										
671	18279.153	9.157	P 64 (28-1)		693	18274.567		4.564	P154 (29-0)										
		9.139	P153 (29-0)		694	18274.438		4.438	R100 (29-1)										
672	18279.069	9.084	P111 (33-2)		695	18274.285		4.286	P 57 (25-0)										
		9.069	R 96 (28-1)		696	18274.137		4.169	R 70 (28-1)										
		9.036	R120 (30-1)																
673	18278.871	8.871	P 54 (25-0)		696	18273.866		3.888	P 97 (29-1)										
		8.851	P117 (30-1)					3.865	R 98 (26-0)										
	18278.715	8.714	R137 (31-1)		697	18273.711		3.713	R 61 (25-0)										
674	18278.332	8.370	P118 (27-0)		698	18273.515		3.514	P 67 (28-1)										
		8.332	R 58 (25-0)		699	18272.705		2.730	R123 (27-0)										
	18278.145							2.704	P 58 (25-0)										
	18278.017				700	18272.595		2.595	P 95 (26-0)										
675	18277.945	7.945	R 68 (28-1)					2.539	R 71 (28-1)										
676	18277.819	7.818	P 93 (26-0)		701	18272.240		2.239	R 62 (25-0)										
677	18277.627				702	18272.119		2.101	P113 (33-2)										
678	18277.368	7.369	P 55 (25-0)					2.062	R122 (30-1)										
679	18277.311	7.304	P 65 (28-1)					1.984	P139 (28-0)										
680	18277.258	7.252	R 99 (29-1)		703	18271.986		1.868	P122 (29-1)										
	18276.955							1.812	R126 (28-1)										
681	18276.819	6.819	R 59 (25-0)		704	18271.605		1.618	P120 (27-0)										
	18276.703	6.703	P 56 (29-1)					1.595	R101 (29-1)										
682	18276.627	6.625	R141 (28-0)					1.576	P 68 (28-1)										
683	18276.481	6.481	R 97 (26-0)		705	18271.221		1.220	R 99 (26-0)										
	18276.201				706	18271.095		1.095	P 59 (25-0)										
684	18276.124	6.127	R122 (27-0)					1.049	R 98 (29-1)										
685	18276.073	6.071	R 69 (28-1)		707	18270.499		0.500	R 63 (25-0)										
686	18275.840	5.893	P138 (28-0)																
		5.841	P 56 (25-0)																



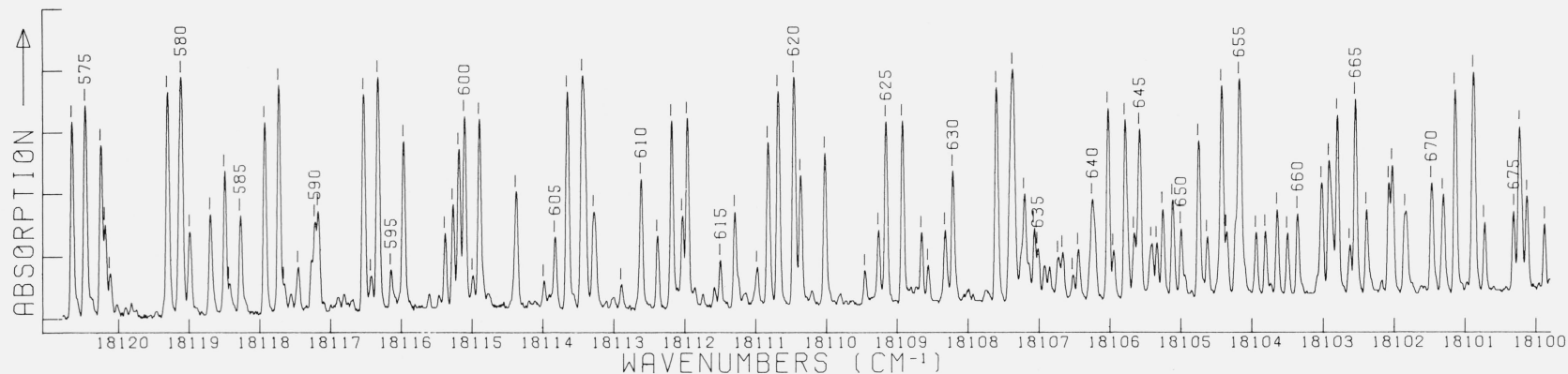
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844	18240.288		0.288	R110 (26-0)	867	18237.239		7.247	R133 (27-0)	895	18233.457		3.456	R 49 (27-1)	924	18228.760		8.789	P 49 (27-1)	951	18224.468		4.485	P 52 (27-1)
845	18240.226		0.225	P 40 (27-1)				7.232	R 46 (27-1)				3.432	P175 (30-0)				8.757	P 26 (24-0)				4.464	P 83 (25-0)
846	18239.890		9.887	R 86 (28-1)	868	18237.200		7.194	P 10 (24-0)	896	18233.309		3.310	P 79 (25-0)	925	18228.667		8.678	R115 (29-1)	952	18224.365		4.362	P 89 (28-1)
847	18239.796		9.794	P129 (27-0)	869	18237.119		7.120	R 14 (24-0)	897	18233.270		3.264	P 19 (24-0)				8.661	P132 (27-0)					
848	18239.661		9.662	P 76 (25-0)	870	18236.859		6.870	R165 (29-0)	898	18233.135		3.134	R 23 (24-0)	926	18228.583		8.583	R 30 (24-0)					
			9.613	R 44 (27-1)				6.861	P 11 (24-0)	899	18232.916		2.915	P109 (26-0)										
								6.823	P162 (29-0)	900	18232.850		2.847	P 46 (27-1)										
849	18239.390		9.253	R150 (28-0)	871	18236.761		6.780	R 15 (24-0)	901	18232.696		2.698	P 20 (24-0)	927	18228.196		8.196	R114 (26-0)	953	18223.884		3.884	P 32 (24-0)
850	18239.256		9.176	R 1 (24-0)				6.756	R 81 (25-0)				2.649	R 89 (28-1)				8.137	P112 (29-1)	954	18223.678		3.698	P112 (26-0)
			9.173	R 2 (24-0)				6.738	P 84 (28-1)	902	18232.562		2.562	R 24 (24-0)	928	18228.068		8.072	R 85 (25-0)				3.685	R 56 (27-1)
			9.153	R 0 (24-0)	872	18236.661		6.659	P 43 (27-1)	903	18232.468		2.468	R 83 (25-0)	929	18228.014		8.037	R 53 (27-1)	955	18223.568		3.567	R 87 (25-0)
			9.144	R 3 (24-0)						904	18232.405		2.401	P131 (27-0)				8.036	P176 (30-0)					
			9.128	P 83 (28-1)	873	18236.584		6.502	P 12 (24-0)	905	18232.107		2.142	R 50 (27-1)				8.010	P 27 (24-0)	CALC	*****		3.060	P132 (30-1)
851	18239.072		9.089	R 4 (24-0)	874	18236.416		6.415	R 16 (24-0)				2.116	P 21 (24-0)	930	18227.830		7.830	R 31 (24-0)	956	18222.984		2.984	P 53 (27-1)
			9.063	P 41 (27-1)	875	18236.115		6.117	P 13 (24-0)	906	18231.964		1.993	R166 (29-0)	931	18227.683		7.680	R 91 (28-1)				2.981	P 33 (24-0)
852	18239.011		9.029	P 1 (24-0)				6.112	P130 (27-0)				1.964	R 25 (24-0)	932	18227.478							2.761	R 37 (24-0)
			9.009	R 5 (24-0)	876	18236.017		6.024	R 17 (24-0)				1.961	P163 (29-0)	933	18227.383		7.382	P 50 (27-1)	957	18222.761		2.607	P177 (30-0)
853	18238.916		8.929	P 2 (24-0)				6.000	R 47 (27-1)				1.937	R114 (29-1)	934	18227.236		7.237	P 28 (24-0)	958	18222.600		2.596	R 93 (28-1)
			8.919	P107 (26-0)	877	18235.931		5.931	P108 (26-0)	907	18231.876		1.873	P 86 (28-1)				7.084	R167 (29-0)					
			8.902	R 6 (24-0)	878	18235.705		5.706	P 14 (24-0)	908	18231.490		1.522	P 47 (27-1)				7.067	P164 (29-0)	959	18222.536		2.226	R137 (27-0)
854	18238.859		8.859	R 80 (25-0)	879	18235.607		5.607	R 18 (24-0)				1.488	P 22 (24-0)				7.050	R 32 (24-0)				2.185	P 84 (25-0)
855	18238.774		8.803	P 3 (24-0)	880	18235.452		5.454	P 78 (25-0)	909	18231.339		1.394	P111 (29-1)				6.996	P131 (30-1)				2.179	R 57 (27-1)
			8.794	P174 (30-0)				5.416	P 44 (27-1)				1.339	R 26 (24-0)	935	18226.896		6.894	P 88 (28-1)				2.142	R168 (29-0)
			8.770	R 7 (24-0)	881	18235.270		5.269	P 15 (24-0)	910	18231.262		1.261	R113 (26-0)	936	18226.799		6.798	P111 (26-0)				2.141	P165 (29-0)
856	18238.609		8.650	P 4 (24-0)	882	18235.164		5.167	R113 (29-1)	911	18231.139		1.139	P 80 (25-0)	937	18226.717		6.716	P 82 (25-0)	960	18222.053		2.071	R117 (29-1)
			8.617	P128 (30-1)				5.164	R 19 (24-0)				1.000	P130 (30-1)	938	18226.616		6.614	R 54 (27-1)				2.052	P 34 (24-0)
			8.612	R 8 (24-0)	883	18235.094		5.090	R 88 (28-1)				0.900	P130 (30-1)	939	18226.436		6.437	P 29 (24-0)	961	18221.980		1.980	R116 (26-0)
			8.574	P147 (28-0)				4.947	R151 (28-0)	912	18230.842		0.844	P 23 (24-0)	940	18226.244		6.244	R 33 (24-0)	962	18221.825		1.825	R154 (28-0)
857	18238.434		8.472	P 5 (24-0)	885	18234.806		4.807	P 16 (24-0)				0.801	R 51 (27-1)				6.241	R153 (28-0)				1.825	R 38 (24-0)
			8.436	R 45 (27-1)				4.774	P129 (30-1)	913	18230.689		0.689	R 27 (24-0)									1.801	P 90 (28-1)
			8.428	R 9 (24-0)	886	18234.696		4.742	R 48 (27-1)	914	18230.624		0.610	R152 (28-0)	941	18226.149		6.025	R136 (27-0)	963	18221.481		1.533	P114 (29-1)
			8.366	R112 (29-1)				4.696	R 20 (24-0)	915	18230.283		0.283	R 84 (25-0)	942	18225.950		5.947	P 51 (27-1)				1.479	P 54 (27-1)
858	18238.263		8.268	P 6 (24-0)	887	18234.625		4.625	R 82 (25-0)	916	18230.174		0.178	R 90 (28-1)	943	18225.835		5.833	R 86 (25-0)	964	18221.274		1.274	R 88 (25-0)
			8.218	R 10 (24-0)				4.621	P110 (29-1)				0.174	P 24 (24-0)	944	18225.611		5.612	P 30 (24-0)	965	18221.198		1.194	P151 (28-0)
			8.039	P 7 (24-0)								0.169	P 48 (27-1)				5.585	P150 (28-0)	966	18221.097		1.097	P 35 (24-0)	
859	18237.984		7.982	R 11 (24-0)	888	18234.436		4.320	P 85 (28-1)	917	18230.014		0.013	R 28 (24-0)	945	18225.412		5.412	R 34 (24-0)				1.092	P134 (27-0)
860	18237.877		7.875	P 42 (27-1)				4.318	P 17 (24-0)	918	18229.953		9.945	P149 (28-0)				5.390	R116 (29-1)	967	18220.864		0.864	R 39 (24-0)
861	18237.784		7.819	P109 (29-1)	889	18234.153		4.298	R112 (26-0)	919	18229.871		9.871	P110 (26-0)	946	18225.161		5.163	R 55 (27-1)	968	18220.645		0.646	R 58 (27-1)
			7.783	P 8 (24-0)				4.275	P148 (28-0)	920	18229.798		9.795	R135 (27-0)				5.152	R 92 (28-1)	969	18220.571		0.569	P113 (26-0)
862	18237.721		7.721	R 12 (24-0)	889	18234.202		4.201	R 21 (24-0)	921	18229.477		9.479	P 25 (24-0)	947	18225.104		5.102	R115 (26-0)					
863	18237.572		7.571	P 77 (25-0)	890	18234.153		4.145	P 45 (27-1)				9.433	R 52 (27-1)	948	18224.890		4.891	P133 (27-0)	970	18220.116		0.116	P 36 (24-0)
864	18237.503		7.503	R 87 (28-1)	891	18233.937				922	18229.311		9.398	R 87 (28-1)				4.850	P113 (29-1)	971	18220.016		0.012	R 94 (28-1)
			7.502	P 9 (24-0)	892	18233.803		3.804	P 18 (24-0)				9.311	R 29 (24-0)	949	18224.761		4.761	P 31 (24-0)				9.935	P 55 (27-1)
865	18237.434		7.433	R 13 (24-0)	893	18233.679		3.681	R 22 (24-0)	923	18229.066				950	18224.554		4.555	R 35 (24-0)	972	18219.877		9.879	P 85 (25-0)
866	18237.307		7.307	R111 (26-0)	894	18233.537		3.536	R134 (27-0)				8.941	P 81 (25-0)									9.876	R 40 (24-0)



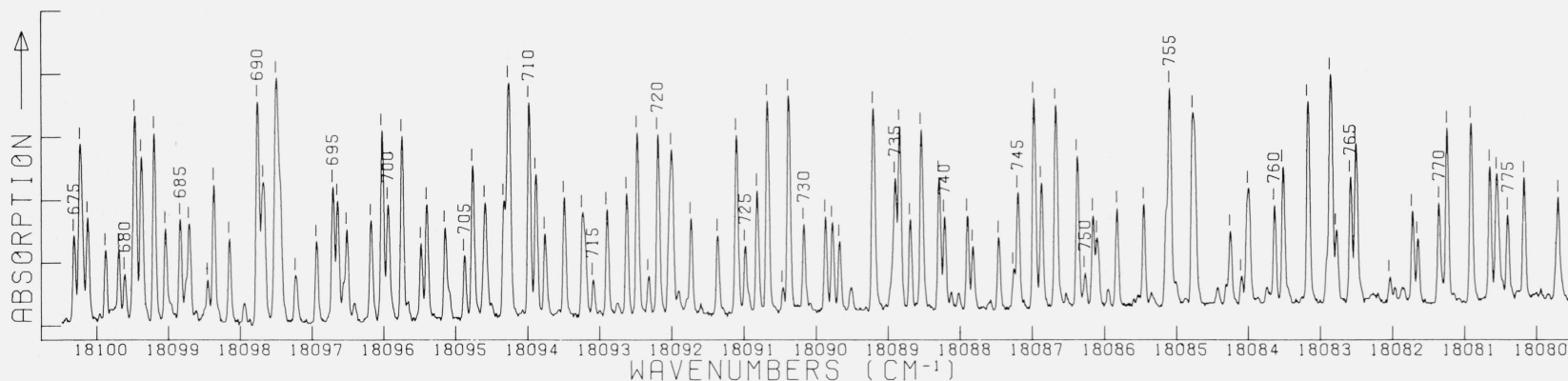
LINE	OBS	CM-1	CALC	ASSIGNMENT	LINE	OBS	CM-1	CALC	ASSIGNMENT	LINE	OBS	CM-1	CALC	ASSIGNMENT	LINE	OBS	CM-1	CALC	ASSIGNMENT				
970	18220.116	0.116	P 36 (24-0)		985	18216.606	6.607	R 90 (25-0)		1003	18212.090	2.085	R 97 (28-1)		1019	18207.946	7.967	P 118 (29-1)	1037	18203.896	3.935	R158 (28-0)	
971	18220.016	0.012	R 94 (28-1)				6.594	P 92 (28-1)			18211.934	1.934	R120 (29-1)				7.944	P 90 (25-0)			3.899	R100 (28-1)	
	18219.934	9.935	P 55 (27-1)		986	18215.933	5.933	P 40 (24-0)		1004	18211.829	1.831	R 92 (25-0)			18207.840	7.835	P154 (28-0)	1038	18203.802	3.799	R 68 (27-1)	
972	18219.877	9.879	R 85 (25-0)				5.881	R 61 (27-1)			18211.802	1.802	P 60 (27-1)		1020	18207.775	7.773	P117 (26-0)			3.655	P 50 (24-0)	
		9.876	P 40 (24-0)		987	18215.662	5.665	R 44 (24-0)			18211.645	1.646	P 44 (24-0)		1021	18207.613	7.612	P 44 (24-0)	1039	18203.656	3.321	P 55 (24-0)	
	18219.396						5.651	R118 (26-0)			18211.404	1.404	P117 29-1		1022	18207.392	7.389	P 65 (27-0)	1040	18203.315	3.315	R 56 (24-0)	
973	18219.215	9.212	P 31 (28-1)				5.343	R119 (29-1)		1005	18211.334	1.334	P 44 (24-0)		1023	18207.294	7.293	R 51 (24-0)			3.075	P 97 (28-1)	
974	18219.104	9.110	P 37 (24-0)		988	18215.539	5.539	P 87 (25-0)				1.272	P 94 (28-1)			18207.121	7.170	P168 (29-0)	1041	18202.982	2.981	P 65 (27-1)	
		9.093	P133 (30-1)		989	18215.186	5.186	P 87 (25-0)		1006	18211.034	1.066	P135 (30-1)				7.121	R171 (29-0)			2.980	P 92 (25-0)	
		9.085	R 59 (27-1)				5.137	P 58 (27-1)				1.037	R 48 (24-0)		1024	18206.948	6.947	P136 (30-1)			2.913	P137 (30-1)	
975	18218.955	8.954	R 89 (25-0)				5.095	P134 (30-1)				1.015	P116 (26-0)				6.947	R 94 (25-0)			2.882	18202.784	
976	18218.859	8.862	R 43 (24-0)		990	18214.822	4.822	P 41 (24-0)		1007	18210.871	0.869	R 65 (27-1)		1025	18206.732	6.740	R161 (27-0)	1042	18202.655	2.652	R142 (27-0)	
		8.830	R117 (26-0)				4.810	P116 (29-1)		1008	18210.650	0.649	R140 (27-0)		1026	18206.661	6.659	P 59 (28-1)				18202.509	
	18218.721	8.722	R118 (29-1)		991	18214.761	4.756	R 96 (28-1)		1009	18210.385	0.385	P 89 (25-0)		1027	18206.594	6.592	P 63 (27-1)	1044	18202.284	2.284	P 51 (24-0)	
977	18218.370	8.396	R138 (27-0)		992	18214.547	4.547	R 45 (24-0)			18210.306					18206.465						18202.186	
		8.363	P 56 (27-1)				4.537	R139 (27-0)		1010	18210.117	0.120	P 45 (24-0)		1028	18206.319	6.319	P 48 (24-0)			2.115	P169 (29-0)	
	18218.186	8.186	P115 (29-1)		993	18214.233	4.238	R 62 (27-1)				0.093	P 61 (27-1)			18206.142					2.048	R172 (29-0)	
978	18218.077	8.077	P 38 (24-0)				4.233	R 91 (25-0)							1029	18205.993	5.992	R 52 (24-0)	1045	18201.942	1.963	R 69 (27-1)	
979	18217.823	7.823	R 42 (24-0)				4.228	P115 (26-0)		1011	18209.990	9.815	R 49 (24-0)		1030	18205.841	5.945	R121 (27-0)			1.953	R 96 (25-0)	
	18217.635				994	18214.029	4.029	P137 (27-0)		1012	18209.850	9.517	P137 (27-0)		1031	18205.608	5.608	P 67 (27-1)	1046	18201.657	1.653	P139 (27-0)	
980	18217.547	7.546	P 86 (25-0)		995	18213.950	3.947	P 93 (28-1)		1013	18209.402	9.403	R 93 (25-0)		1032	18205.477	5.475	P 91 (25-0)	1047	18201.524	1.526	P137 (29-1)	
		7.497	R 60 (27-1)		996	18213.687	3.686	P 42 (24-0)				9.385	R 98 (28-1)		1033	18205.001	5.025	R122 (29-1)	1048	18201.206	1.206	P119 (26-0)	
981	18217.411	7.413	P114 (26-0)		997	18213.485	3.483	P 59 (27-1)		1014	18209.209	9.209	R120 (26-0)		1034	18204.802	5.802	P 49 (24-0)			1.113	R101 (28-1)	
		7.412	R155 (28-0)				3.405	P136 (27-0)		1015	18209.147	9.147	R 65 (27-1)		1035	18204.667	4.666	R 53 (24-0)	1049	18201.011	1.011	P 64 (29-1)	
		7.398	R 95 (28-1)		998	18212.955	2.951	R 46 (24-0)		1016	18208.880	8.879	P 46 (24-0)		1036	18204.468	4.504	P118 (26-0)	1050	18200.531	0.529	R 56 (24-0)	
	18217.334				999	18212.800	2.800	R 58 (28-0)		1017	18208.568	8.567	R 50 (24-0)				4.501	P119 (29-1)	1051	18200.459	0.457	P 93 (25-0)	
982	18217.266	7.263	P135 (27-0)				2.799	R 88 (25-0)				8.494	R121 (29-1)		1037	18204.177	4.177	R 95 (25-0)			0.099	R 70 (27-1)	
	18217.175	7.183	P166 (29-0)		1000	18212.446	2.444	R119 (26-0)		1018	18208.358	8.356	P 62 (27-1)				4.464	R 95 (25-0)	1052	18200.101	0.099	R 70 (27-1)	
		7.168	R169 (29-0)		1001	18212.325	2.325	P 39 (28-0)			18208.079												
		7.143	P178 (30-0)		1002	18212.234	2.233	P153 (28-0)															
983	18217.018	7.018	P152 (28-0)				2.193	P167 (29-0)															
984	18216.759	6.764	P 57 (27-1)				2.161	R170 (29-0)															
		6.757	R 43 (24-0)																				



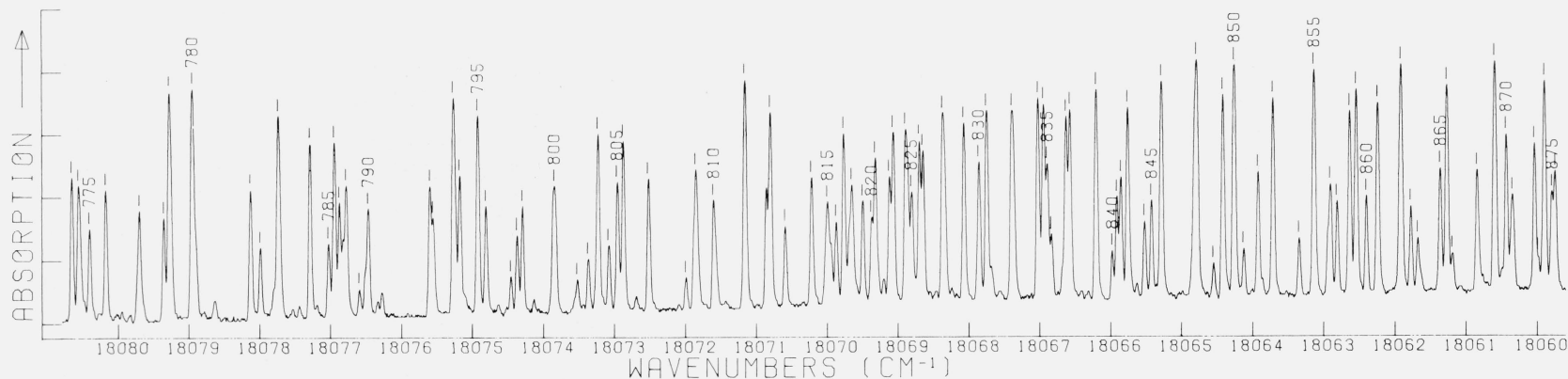
LINE	OBS	CM-1	CALC	ASSIGNMENT	LINE	OBS	CM-1	CALC	ASSIGNMENT	LINE	OBS	CM-1	CALC	ASSIGNMENT	LINE	OBS	CM-1	CALC	ASSIGNMENT				
254	18180.350		0.357	P 20 (26-1)	272	18176.635				293	18172.725		2.725	R 34 (26-1)	314	18168.675		8.666	R132 (29-1)				
			0.346	P 65 (24-0)	273	18176.530	6.528	P102 (25-0)		294	18172.635		2.634	R 73 (24-0)	315	18168.552	8.549	R112 (28-1)	339	18164.262	4.263	P 39 (26-1)	
			0.282	P160 (28-0)	274	18176.312	6.316	P 26 (26-1)		295	18172.533		2.532	R107 (25-0)	316	18168.451	8.452	P 35 (26-1)	340	18164.160	4.159	R 87 (27-1)	
255	18180.108		0.109	R 24 (26-1)			6.310	R 71 (24-0)			18172.441		2.439	R131 (29-1)			8.184	P129 (29-1)	341	18163.931	3.931	R110 (25-0)	
256	18179.883		9.948	P105 (28-1)		18176.185	6.192	R177 (29-0)		296	18172.379		2.378	P 80 (27-1)			8.155	R132 (26-0)	342	18163.792	3.793	R 43 (26-1)	
			9.932	R 80 (27-1)			6.181	R130 (29-1)		297	18172.212		2.214	P 31 (26-1)			8.060	P105 (25-0)	343	18163.530	3.531	P 74 (24-0)	
			9.893	R129 (29-1)		18176.151	6.135	R164 (28-0)			18171.955		1.952	P128 (29-1)	317	18168.053	8.060	P105 (25-0)	344	18163.153	3.164	P 84 (27-1)	
			9.881	R 69 (24-0)	275	18175.997	5.999	R 30 (26-1)		298	18171.839		1.840	R 35 (26-1)			8.031	R 39 (26-1)			3.148	P 40 (26-1)	
257	18179.749		9.750	P 21 (26-1)		18175.693	5.689	P127 (29-1)		299	18171.733		1.734	R131 (26-0)	318	18167.828	7.827	P 82 (27-1)	345	18163.054	3.051	P130 (26-0)	
258	18179.490		9.491	R 25 (26-1)	276	18175.556	5.581	P161 (28-0)		300	18171.660		1.655	R111 (28-1)	319	18167.693	7.692	P109 (28-1)	346	18162.983	2.982	R 78 (24-0)	
	18179.401		9.396	P126 (29-1)			5.565	R 82 (27-1)			18171.538				320	18167.450	7.451	P 72 (24-0)	347	18162.666	2.667	R 44 (26-1)	
259	18179.299		9.296	P101 (25-0)			5.549	P 27 (26-1)			18171.396		1.392	R165 (28-0)			7.445	P 36 (26-1)			18162.449		
260	18179.116		9.117	P 22 (26-1)		18175.448				301	18171.268		1.314	P 32 (26-1)	321	18167.339			348	18162.276	2.277	P107 (25-0)	
261	18179.000		8.998	R 77 (27-1)	277	18175.345	5.344	R106 (25-0)					1.267	P 70 (24-0)	322	18167.011	7.011	R 40 (26-1)			2.250	R114 (28-1)	
	18178.927				278	18175.287	5.284	R130 (26-0)			18171.187				323	18166.922	6.922	R 76 (24-0)	349	18162.007	2.007	P 41 (26-1)	
262	18178.813		8.846	R 26 (26-1)	279	18175.221	5.221	R 31 (26-1)		302	18171.089		1.086	R 84 (27-1)	324	18166.826	6.825	R109 (25-0)	350	18161.798	1.810	R167 (28-0)	
			8.805	R129 (26-0)		18175.099				303	18170.916		0.928	R 36 (26-1)	325	18166.660	6.662	P129 (26-0)			1.794	R 88 (27-1)	
263	18178.585		8.583	P 66 (24-0)	280	18174.979	4.977	P 68 (24-0)					0.922	R178 (29-0)			6.616	R166 (28-0)			1.651	R152 (27-0)	
264	18178.459		8.464	R148 (27-0)	281	18174.750	4.755	P 28 (26-1)					0.910	P104 (25-0)	326	18166.498	6.496	R 86 (27-1)	351	18161.526	1.531	P 75 (24-0)	
			8.457	P 23 (26-1)			4.732	R110 (28-1)					0.849	P162 (28-0)	327	18166.410	6.411	P 37 (26-1)			1.513	R 45 (26-1)	
	18178.316				282	18174.614	4.613	P 79 (27-1)		304	18170.757		0.799	P108 (28-1)			6.085	P163 (28-0)	352	18161.389	1.389	P111 (28-1)	
265	18178.118		8.174	R 27 (26-1)	283	18174.487	4.485	R 72 (24-0)			18170.623		0.756	R 74 (24-0)	329	18165.963	5.965	R 41 (26-1)	353	18161.289	1.290	P164 (28-0)	
			8.128	R105 (25-0)	284	18174.415	4.416	R 32 (26-1)			18170.386		0.387	P 33 (26-1)	330	18165.908	5.899	R151 (27-0)	354	18160.977	1.078	R111 (25-0)	
			8.109	R 70 (24-0)	285	18174.311	4.306	R149 (27-0)		305	18170.386		0.387	P 33 (26-1)			5.619	R179 (29-0)			0.972	R 79 (24-0)	
	18177.946					18174.235				306	18170.246		0.245	P128 (26-0)	331	18165.506	5.509	P 83 (27-1)	355	18160.913	0.910	R134 (26-0)	
266	18177.770		7.779	R109 (28-1)	286	18173.934	3.935	P 29 (26-1)		307	18170.118		0.118	R150 (27-0)			5.504	P 73 (24-0)	356	18160.837	0.839	P 42 (26-1)	
			7.770	P 24 (26-1)	287	18173.863	3.878	P107 (28-1)					0.116	P 81 (27-1)	332	18165.419	5.414	R113 (28-1)	357	18160.795	0.790	P 85 (27-1)	
			7.762	R 81 (27-1)	288	18173.801	3.799	P127 (26-0)		308	18169.989		9.989	R 37 (26-1)	333	18165.350	5.350	P 38 (26-1)	358	18160.550	0.558	P131 (29-1)	
			7.704	P143 (30-1)	289	18173.735	3.732	P103 (25-0)		309	18169.693		9.692	R108 (25-0)	334	18165.184	5.182	P106 (25-0)			0.549	P149 (27-0)	
267	18177.473		7.476	R 28 (26-1)	290	18173.584	3.584	R 33 (26-1)			18169.433		9.433	P 34 (26-1)	335	18164.966	4.965	R 77 (24-0)	359	18160.332	0.333	R 46 (26-1)	
268	18177.334		7.348	P145 (27-0)	291	18173.341	3.392	P144 (30-1)		310	18169.374		9.372	P 71 (24-0)			4.863	R 42 (26-1)			18160.269		
			7.325	P126 (26-0)			3.339	R 83 (27-1)		311	18169.094		9.094	P145 (30-1)	336	18164.890					18160.100		
269	18177.054		7.056	P 25 (26-1)	292	18173.136	3.193	P146 (27-0)		312	18169.019		9.023	R 38 (26-1)			4.794	P148 (27-0)	360	18159.645	9.645	P 43 (26-1)	
270	18176.935		6.928	P106 (28-1)			3.135	P 69 (24-0)					9.008	P147 (27-0)	337	18164.674	4.673	P146 (30-1)	361	18159.505	9.504	P 76 (24-0)	
271	18176.796		6.819	P 78 (27-1)			3.088	P 30 (26-1)		313	18168.853		8.852	R 75 (24-0)	338	18164.548	4.555	P110 (28-1)	362	18159.407	9.411	P131 (26-0)	
			6.793	P 67 (24-0)		18172.991						8.805	R 85 (27-1)			4.547	R133 (26-0)			9.400	R 89 (27-1)		
			6.751	R 29 (26-1)													4.386	P130 (29-1)	363	18159.347	9.345	P108 (25-0)	



LINE	OBS	CM-1	CALC	ASSIGNMENT	LINE	OBS	CM-1	CALC	ASSIGNMENT	LINE	OBS	CM-1	CALC	ASSIGNMENT	LINE	OBS	CM-1	CALC	ASSIGNMENT			
574	18120.665		0.664	P 50 (23-0)	594	18116.344	6.351	R 74 (26-1)	618	18110.837	0.839	P 97 (24-0)	635	18107.032	7.025	R 7 (25-1)	658	18103.749	3.747	P145 (29-1)		
		0.594	P141 (29-1)			6.342	R 57 (23-0)		619	18110.696	0.697	P 57 (23-0)		6.946	R148 (26-0)		658	18103.656	3.659	R129 (25-0)		
575	18120.477	0.496	R124 (25-0)	595	18116.157	6.158	P102 (27-1)	620	18110.472	0.478	R127 (25-0)		6.916	P 4 (26-1)				659	18103.656	3.649	R125 (27-0)	
		0.475	R 54 (23-0)	596	18115.977	5.979	P 95 (24-0)			0.472	R 61 (23-0)		6.854	R 8 (25-1)				660	18103.571	3.571	P 15 (25-1)	
	18120.384					18115.617			621	18110.379	0.392	P126 (28-1)	636	18106.742	6.747	P127 (28-1)			661	18103.029	3.029	P 16 (25-1)
576	18120.256	0.258	R 97 (24-0)			18115.480					0.379	P 77 (26-1)		6.737	P 7 (25-1)					3.022	P 16 (25-1)	
	18120.177	0.196	R 72 (26-1)	597	18115.395	5.394	P122 (25-0)			0.372	P104 (27-1)		6.37	18106.680	6.687	P 9 (25-1)					3.022	P 16 (25-1)
578	18120.129	0.127	R104 (27-1)	598	18115.285	5.284	P 71 (26-0)		18110.219				638	18106.535	6.532	P 6 (25-1)					3.022	P 16 (25-1)
	18120.031			599	18115.201	5.201	R 99 (24-0)		622	18110.036	0.036	R101 (24-0)	639	18106.460	6.464	R 10 (25-1)	662	18102.925	2.929	P100 (24-0)		
	18119.911			600	18115.121	5.122	P 54 (23-0)			18109.823			640	18106.261	6.301	P 7 (25-1)					2.897	R 20 (25-1)
	18119.828			601	18115.003	5.006	R146 (26-0)		623	18109.464	9.465	P144 (26-0)		6.262	R 79 (26-1)					2.872	R149 (26-0)	
	18119.766			602	18114.911	4.913	R 58 (23-0)		624	18109.276	9.275	P 74 (26-1)		6.225	R 11 (25-1)			663	18102.808	2.808	P 62 (23-0)	
	18119.479					4.862	R128 (28-1)		625	18109.170	9.170	P 58 (23-0)	641	18106.041	6.043	P 8 (25-1)			664	18102.632	2.633	R110 (27-1)
579	18119.317	9.317	P 51 (23-0)			18114.787			626	18108.940	8.940	R 52 (23-0)		6.040	P 6 (25-1)					2.618	P162 (27-0)	
580	18119.125	9.154	P 69 (26-1)	603	18114.392	4.409	R106 (27-1)		627	18108.670	8.672	P124 (25-0)	642	18105.962	5.960	R 12 (25-1)			665	18102.554	2.556	R 66 (23-0)
		9.123	R 55 (23-0)			4.388	R 75 (26-1)		628	18108.576	8.578	R108 (27-1)	643	18105.798	5.800	R 64 (23-0)					2.553	P 17 (25-1)
581	18118.999	9.009	P101 (27-1)	604	18113.998	3.998	P125 (28-1)		629	18108.335	8.334	R 78 (26-1)		5.760	P 9 (25-1)			666	18102.397	2.397	R 21 (25-1)	
		8.991	R145 (26-0)	605	18113.843	3.845	R126 (25-0)			8.295	R164 (27-0)		5.669	R 13 (25-1)					2.187			
		8.714	P121 (25-0)	606	18113.671	3.673	P 55 (23-0)		630	18108.227	8.229	R 98 (24-0)	644	18105.669	5.669	R109 (27-1)			667	18102.086	2.088	R104 (24-0)
582	18118.712	8.509	P 94 (24-0)			18113.577				8.005	P144 (29-1)		5.592	P 99 (24-0)			668	18102.036	2.036	R 81 (26-1)		
583	18118.508	8.439	R122 (28-1)	607	18113.454	3.481	P143 (26-0)			18108.009			5.451	P 10 (25-1)					2.034	R 11 (25-1)		
584	18118.343	8.319	R 73 (23-0)			3.458	R 59 (23-0)		631	18107.758	7.758	P145 (29-1)		5.351	P105 (27-1)			669	18101.850	1.849	R 82 (26-1)	
585	18118.228	8.228	R 73 (23-0)			3.422	P 96 (24-0)		632	18107.616	7.618	R130 (28-1)		5.269	P125 (25-0)					1.838	P126 (25-0)	
586	18117.943	7.944	P 52 (23-0)			3.408	P 72 (26-1)				7.618	R 59 (23-0)	647	18105.352	5.351	R 14 (25-1)						
587	18117.743	7.745	R 56 (23-0)	608	18113.296	3.308	P 72 (26-1)		631	18107.386	7.440	R 1 (25-1)	648	18105.269	5.269	P125 (25-0)						
		7.743	R 98 (24-0)			3.279	P103 (27-1)				7.437	P105 (27-1)	649	18105.126	5.134	P 76 (26-1)	670	18101.485	1.489	P 19 (25-1)		
588	18117.667			609	18112.907	2.909	R163 (27-0)				7.436	R 2 (25-1)		5.115	P 11 (25-1)					1.482	P107 (27-1)	
	18117.572	7.574	P124 (28-1)	610	18112.629	2.632	R100 (24-0)				7.418	R 0 (25-1)	650	18105.009	5.008	R 15 (25-1)	671	18101.320	1.345	P146 (26-0)		
589	18117.470	7.493	R162 (27-0)	611	18112.398	2.397	R 76 (26-1)				7.414	R102 (24-0)	651	18104.761	4.765	R103 (24-0)			672	18101.152	1.317	R 23 (25-1)
		7.468	P146 (29-1)	612	18112.198	2.232	P146 (29-1)				7.406	R 3 (25-1)		4.753	P 12 (25-1)					1.153	673 (23-0)	
590	18117.232	7.282	R105 (27-1)			2.197	P 56 (23-0)				7.363	R 63 (25-1)	652	18104.638	4.638	R 16 (25-1)	673	18100.895	0.895	P 10 (25-1)		
		7.232	P 70 (26-1)	613	18112.047	2.047	P123 (25-0)				7.350	R 4 (25-1)	653	18104.436	4.436	P106 (27-1)					0.895	R 67 (23-1)
591	18117.188	7.185	R125 (25-0)	614	18111.977	1.978	R 60 (23-0)		633	18107.219	7.295	P 1 (25-1)		4.437	P 61 (23-0)					0.883	P 78 (26-1)	
	18116.907					1.865	P160 (27-1)				7.268	R 5 (25-1)	654	18104.368	4.365	P 13 (25-1)	674	18100.738	0.738	R 24 (25-1)		
	18116.821	6.822	R145 (29-1)			1.865	P160 (27-1)				7.257	P161 (27-0)	655	18104.187	4.242	R 17 (25-1)	675	18100.322	0.322	P 21 (25-1)		
	18116.711	6.716	P173 (28-0)			1.865	P160 (27-1)				7.218	P 75 (26-1)		4.191	R 65 (23-0)			676	18100.236	0.236	R132 (28-1)	
592	18116.546	6.546	P 53 (23-0)	615	18111.508	1.508	R107 (27-1)				7.195	P 2 (25-1)		4.163	R 80 (26-1)					0.239	P101 (24-0)	
593	18116.440	6.442	P159 (29-1)	616	18111.304	1.305	P 73 (26-1)				7.159	R 6 (25-1)	656	18103.952	3.952	R 14 (25-1)					0.207	R130 (25-0)
		6.428	P142 (29-1)			1.255	R129 (28-1)				7.082	R128 (25-0)		3.951	P 14 (25-1)			677	18100.132	0.132	R 25 (25-1)	
						1.255	R129 (28-1)				7.068	P 3 (25-1)	657	18103.820	3.820	R 18 (25-1)			678	18099.881	0.881	R 82 (26-1)
						1.255	R129 (28-1)															
						1.255	R129 (28-1)															
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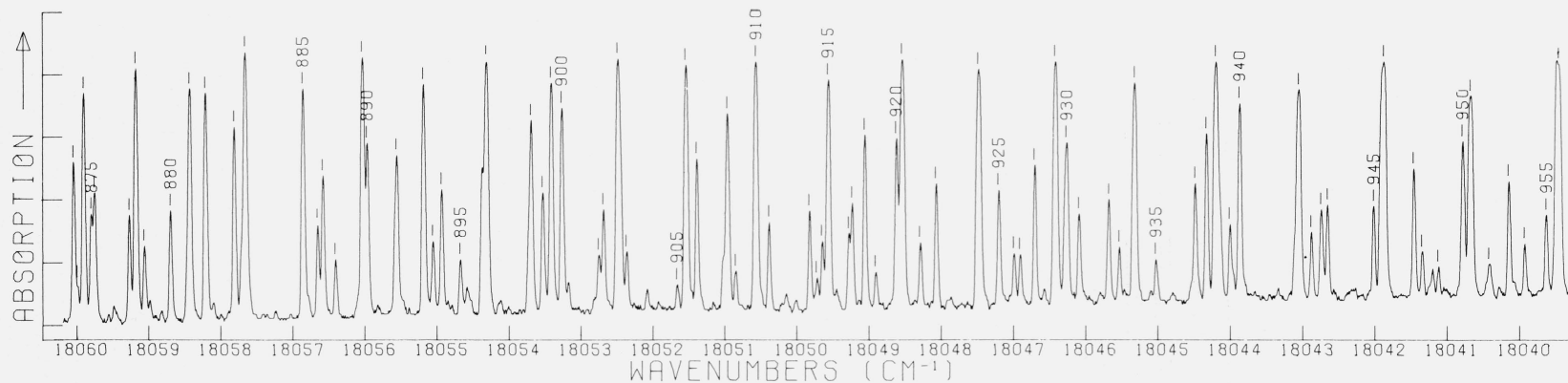


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676	1800	1800.322	0.322	P 12 (25-1)	697	18096.525	6.574	R112 (27-1)	719	18092.334	2.335	P110 (27-1)	741	18087.909	7.908	R 40 (25-1)	759	18084.013	4.035	R 89 (26-1)
676	18100.236	0.256	R132 (28-1)				6.529	R133 (28-1)	720	18092.204	2.206	P 72 (23-1)	741	18087.909	7.908	R 40 (25-1)			4.005	P 40 (25-1)
		0.239	P101 (24-0)				6.524	P 80 (26-1)	721	18092.015	2.056	P 82 (26-1)	742	18087.832	7.834	P130 (25-0)		18083.884		
		0.207	R130 (25-0)		698	18096.190	6.190	P 27 (25-1)			2.028	P 32 (25-1)		18087.606				18083.757	3.758	P166 (27-0)
677	18100.132	0.133	R 25 (25-1)	699	18096.033	6.034	P 66 (23-0)			2.007	P104 (24-0)	743	18087.478	7.479	P 84 (26-1)	760	18083.652	3.651	R 44 (25-1)	
678	18099.881	9.881	R 82 (26-1)	700	18095.953	5.951	R 31 (25-1)		18091.917	1.919	P131 (28-1)	744	18087.269	7.271	R115 (27-1)	761	18083.533	3.534	P107 (24-0)	
679	18099.699	9.698	P 22 (25-1)	701	18095.759	5.759	R 70 (23-0)		18091.747	1.746	R 36 (25-1)	745	18087.210	7.210	P 37 (25-1)	762	18083.187	3.189	P 73 (23-0)	
680	18099.617	9.618	R111 (27-1)		18095.673	5.673	P130 (28-1)		18091.613			746	18086.987	6.988	P 71 (23-0)	763	18082.873	2.932	P113 (27-1)	
681	18099.474	9.501	R 26 (25-1)	702	18095.491	5.491	R 84 (26-1)		18091.376	1.377	P129 (25-0)	747	18086.884	6.884	R 41 (25-1)		2.884	P 41 (25-1)		
		9.472	P 64 (23-0)	703	18095.410	5.410	P109 (27-1)		18091.114	1.117	P 33 (25-1)	748	18086.682	6.682	R 75 (23-0)		2.870	R 77 (23-0)		
		9.458	P148 (24-0)			5.410	P148 (24-0)			1.330	R106 (24-0)		18086.541			764	18082.793	2.793	P 86 (26-1)	
682	18099.384	9.388	P129 (28-1)	704	18095.162	5.162	R 32 (25-1)			1.077	P 88 (26-1)	749	18086.385	6.385	P149 (29-1)	765	18082.599	2.599	R120 (24-0)	
		9.385	R105 (24-0)			5.137	P147 (25-1)		18090.826	0.826	R 37 (25-1)			6.386	P106 (26-1)	766	18082.523	2.526	R135 (25-1)	
683	18099.208	9.209	R 68 (23-0)	705	18094.891	4.892	P128 (25-0)			0.786	P148 (29-1)			6.381	R 88 (24-0)		2.521	R 45 (25-1)		
684	18099.049	9.049	P 23 (25-1)	706	18094.778	4.778	P103 (24-0)		18090.683	0.683	P 69 (23-0)	750	18086.280	6.280	R153 (26-0)	767	18082.054	2.058	R154 (26-0)	
		8.973	R166 (27-0)	707	18094.605	4.635	R151 (26-0)		18090.471	0.472	R152 (26-0)	751	18086.167	6.168	P 38 (25-1)		18081.986	1.990	P150 (29-1)	
685	18098.844	8.844	R 27 (25-1)			4.604	P 29 (25-1)		18090.390	0.401	R114 (27-1)	752	18086.110	6.118	R134 (25-0)	768	18081.737	1.736	P 42 (25-1)	
686	18098.720	8.768	R150 (26-0)		18094.517				0.390	R 73 (23-0)			6.095	P112 (27-1)		18081.664	1.662	R 90 (26-1)		
		8.717	P 79 (26-1)	708	18094.517	4.348	R 33 (25-1)		18090.180	0.179	P 34 (25-1)		18085.957			770	18081.365	1.364	R 46 (25-1)	
				709	18094.276	4.304	P 81 (26-1)		18089.880	9.880	R 3	753	18085.833	5.832	R 42 (25-1)		1.325	R137 (28-1)		
687	18098.461	8.461	P108 (27-1)			4.276	P 67 (23-0)		18089.683	9.683	R 3	754	18085.494	5.495	R110 (28-0)	771	18081.250	1.250	P 74 (23-0)	
688	18098.375	8.379	P127 (25-0)			4.265	P107 (26-0)		18089.523	9.523	R 3	755	18085.356	5.356	P111 (28-1)	772	18080.924	0.925	R 78 (23-0)	
		8.374	P 24 (25-1)	710	18093.994	3.995	R 71 (23-0)		18089.523	9.523	R168 (27-0)	755	18085.101	5.101	R136 (28-1)		0.925	R 78 (23-0)		
689	18098.160	8.160	R 28 (25-1)	711	18093.897	3.898	R107 (24-0)		18089.212	9.229	P111 (27-1)			5.150	P 85 (26-1)	773	18080.658	0.664	P132 (25-0)	
		7.949	P163 (27-0)	712	18093.771	3.771	P 30 (25-1)			9.216	P 35 (25-1)			5.101	P 72 (23-0)		0.656	P108 (24-0)		
690	18097.766	7.766	P 65 (23-0)	713	18093.505	3.506	R 34 (25-1)			9.210	P105 (24-0)			5.099	P 39 (25-1)	774	18080.562	0.563	P 43 (25-1)	
691	18097.685	7.700	R 83 (26-1)			3.502	R113 (27-1)	735	18088.910	8.987	R135 (28-1)		18085.019				0.534	P151 (26-0)		
		7.672	P 25 (25-1)			3.255	R 85 (26-1)			8.947	P149 (26-0)		18084.899				0.479	P134 (28-1)		
692	18097.501	7.522	P102 (24-0)	714	18093.252	3.250	P164 (27-0)			8.907	R 39 (25-1)	756	18084.779	4.789	R 76 (23-0)	775	18080.409	0.408	R 87 (26-1)	
		7.497	R 69 (23-0)			3.219	R132 (25-0)	736	18088.848	8.848	P 70 (23-0)			4.758	R169 (27-0)					
		7.450	R 29 (25-1)	715	18093.106	3.109	P148 (26-0)	737	18088.701	8.700	R 87 (26-1)			4.755	P150 (26-0)	776	18080.182	0.182	R 47 (25-1)	
693	18097.237	7.237	P147 (26-0)	716	18092.914	2.913	P 31 (25-1)	738	18088.548	8.548	P 74 (23-0)			4.735	R 43 (25-1)		18080.024			
694	18096.945	6.944	P 26 (25-1)			2.773	R 134			8.519	P165 (27-0)		18084.434				18079.951	9.957	R170 (27-0)	
695	18096.719	6.727	R131 (25-0)	717	18092.640	2.639	R 35 (25-1)	739	18088.302	8.303	R109 (24-0)		18084.319	4.322	P133 (28-1)		18079.844			
		6.714	R 30 (25-1)	718	18092.492	2.493	P 68 (23-0)	740	18088.226	8.226	P 36 (25-1)	757	18084.261	4.263	P131 (25-0)	777	18079.708	9.741	P114 (27-1)	
696	18096.654	6.655	R106 (24-0)						18088.135	8.136	P32 (28-1)	758	18084.108	4.112	R116 (27-1)		9.707	R112 (24-0)		

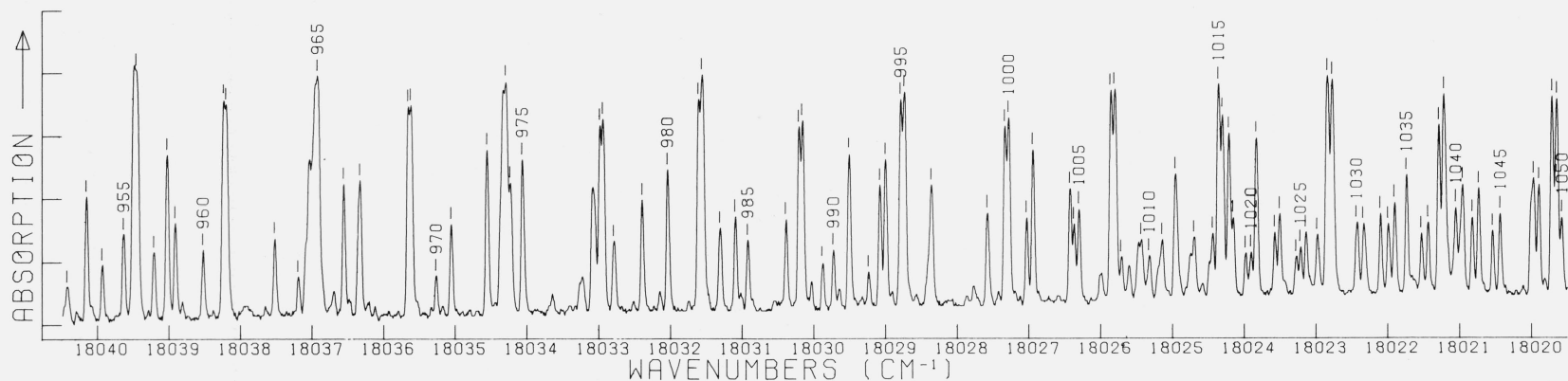


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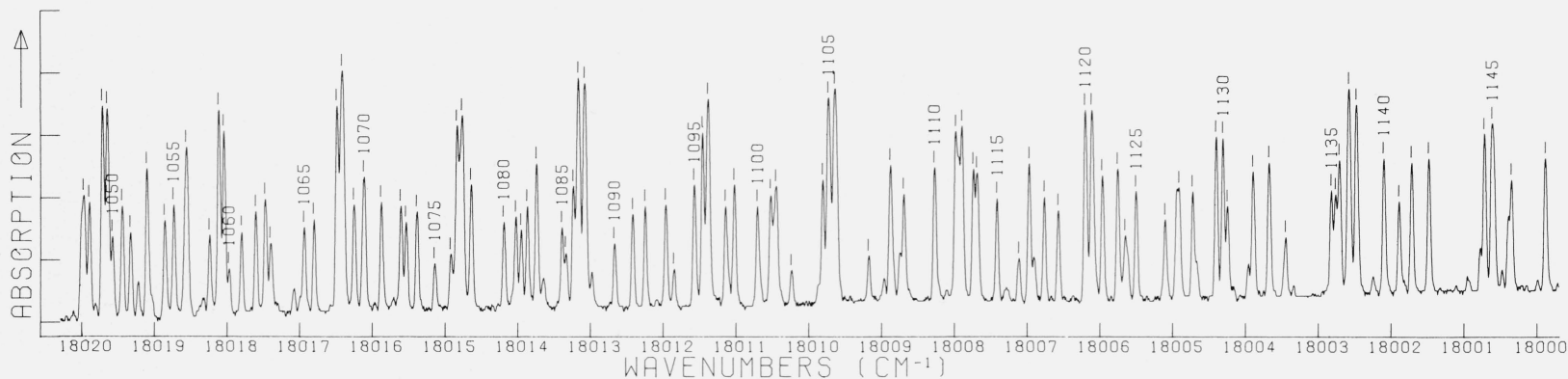
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773	18080.658	0.664	P132 (25-0)		791	18075.606	5.606	P 47 (25-1)		815	18070.006	0.030	R 1 (22-0)		830	18067.870	7.889	R121 (27-1)	
		0.656	P108 (24-0)		792	18075.563	5.558	P 89 (26-1)				0.030	R 2 (22-0)			7.871	R139 (25-0)		
774	18080.562	0.563	P 43 (25-1)		793	18075.278	5.281	P 77 (23-0)				0.006	R 0 (22-0)			7.868	R116 (24-0)		
		0.534	P151 (26-0)				5.255	R137 (25-0)				0.005	R 3 (22-0)		831	18067.761	7.764	P 11 (22-0)	
		0.479	P134 (28-1)		794	18075.187	5.187	R 51 (25-1)				9.996	P117 (27-1)			7.760	R 15 (22-0)		
775	18080.409	0.408	P 87 (26-1)		795	18074.934	4.935	R 81 (23-0)				9.955	R 4 (22-0)			18067.692			
	18080.276				796	18074.818	4.819	P110 (24-0)		816	18069.880	9.881	P 1 (22-0)			18067.573			
776	18080.182	0.182	R 47 (25-1)			18074.645						9.880	R 5 (22-0)		832	18067.404	7.415	P 12 (22-0)	
	18080.024				797	18074.465	4.465	R119 (27-1)		817	18069.774	9.782	P 2 (22-0)			7.411	R 16 (22-0)		
	18079.951	9.957	R170 (27-0)		798	18074.377	4.377	R 93 (26-1)				9.781	R 6 (22-0)			7.381	P 53 (25-1)		
	18079.844				799	18074.301	4.301	P 48 (25-1)				9.770	R 55 (25-1)		833	18067.037	7.041	P 13 (22-0)	
777	18079.708	9.741	P114 (27-1)			18074.144	4.143	P168 (27-0)		818	18069.659	9.697	P135 (25-0)			7.037	R 17 (22-0)		
		9.707	R112 (24-0)		800	18073.856	3.872	R 52 (25-1)				9.657	P 3 (22-0)		834	18066.958	6.959	P 81 (23-0)	
778	18079.364	9.363	P 44 (25-1)				3.842	R114 (24-0)				9.656	R 7 (22-0)		835	18066.906	6.903	R 57 (25-1)	
779	18079.282	9.286	P 75 (23-0)		801	18073.532	3.542	R139 (28-1)				9.605	R140 (28-1)		836	18066.846	6.843	R 96 (26-1)	
		9.261	R 91 (26-1)				3.526	R156 (26-0)		819	18069.506	9.508	P 4 (22-0)		837	18066.639	6.690	P118 (27-1)	
780	18078.958	8.972	R 48 (25-1)			18073.458						9.506	R 8 (22-0)			6.643	P 14 (22-0)		
		8.966	P167 (27-0)		802	18073.379	3.381	P134 (25-0)		820	18069.383	9.382	R 95 (26-1)			6.638	R 18 (22-0)		
		8.954	R 79 (23-0)		803	18073.240	3.273	P116 (27-1)		821	18069.331	9.333	P 5 (22-0)		838	18066.584	6.584	R 85 (23-0)	
		8.904	R136 (25-0)				3.239	P 78 (23-0)				9.332	R 9 (22-0)			18066.423			
18078.803					804	18073.091	3.091	P 90 (26-1)				9.289	P169 (27-0)			18066.331			
18078.639							3.068	P152 (29-1)				9.215	R157 (26-0)		839	18066.215	6.219	P 15 (22-0)	
781	18078.137	8.137	P 45 (25-1)		805	18072.970	2.969	P 49 (25-1)		822	18069.131	9.134	P 6 (22-0)			6.214	R 19 (22-0)		
782	18077.998	7.997	P 88 (26-1)		806	18072.886	2.886	R 82 (23-0)				9.132	R 10 (22-0)		840	18065.986	5.986	P136 (25-0)	
783	18077.743	7.807	R155 (26-0)			18072.706	2.702	P136 (28-1)		823	18069.079	9.078	P 80 (23-0)		841	18065.918	5.917	P 54 (25-1)	
		7.751	P109 (24-0)		807	18072.531	2.531	P 53 (25-1)				8.910	P 7 (22-0)		842	18065.861	5.861	P113 (24-0)	
		7.737	R 49 (25-1)			18072.101				824	18068.904	8.908	R 11 (22-0)		843	18065.767	5.771	P 16 (22-0)	
		7.709	R118 (27-1)		808	18071.999	2.004	P153 (26-0)				8.874	P112 (24-0)			5.765	R 20 (22-0)		
		7.545	P151 (29-1)		809	18071.861	1.893	R 94 (26-1)		825	18068.819	8.817	P 52 (25-1)			5.638	R141 (28-1)		
		7.448	R138 (28-1)				1.860	P111 (24-0)				8.769	P137 (28-1)		844	18065.530	5.527	P 93 (26-1)	
784	18077.296	7.296	P 76 (23-0)		810	18071.610	1.612	P 50 (25-1)		826	18068.711	8.711	R 84 (23-0)		845	18065.432	5.430	R 58 (25-1)	
							1.577	R138 (25-0)		827	18068.660	8.661	P 8 (22-0)		846	18065.292	5.297	P 17 (22-0)	
785	18077.037	7.036	P133 (25-0)		811	18071.170	1.191	R120 (27-1)				8.658	P152 (29-1)			5.291	R 21 (22-0)		
786	18076.957	6.958	R 80 (23-0)				1.171	P 79 (23-0)				8.560	R12 (22-0)		847	18064.803	4.874	R158 (26-0)	
787	18076.885	6.884	P 46 (25-1)				1.164	R 54 (25-1)				8.474	P112 (24-0)			4.880	R117 (24-0)		
788	18076.789	6.833	R 92 (26-1)			18070.866	0.866	R115 (24-0)		828	18068.380	8.387	P 9 (22-0)			4.813	P 82 (23-0)		
		6.788	R113 (24-0)		812	18070.811	0.812	R 83 (23-0)				8.384	R 13 (22-0)			4.806	P138 (28-1)		
		6.605	P135 (28-1)		813	18070.599	0.598	P 91 (26-1)				8.350	R 56 (25-1)			4.799	P 18 (22-0)		
789	18076.603	6.605	P135 (28-1)				0.228	P 51 (25-1)		829	18068.252	8.088	P 10 (22-0)		848	18064.559	4.557	R122 (27-1)	
790	18076.477	6.521	R115 (27-1)		814	18070.230	0.228	P 51 (25-1)				8.085	R 14 (22-0)		849	18064.430	4.431	R 86 (23-0)	
		6.475	R 50 (25-1)									8.076	P 92 (26-1)			4.428	P 55 (25-1)		
18076.347																4.405	P170 (27-0)		
18076.282	6.284	P152 (26-0)																	



LINE	OBS	CM-1	CALC	ASSIGNMENT	LINE	OBS	CM-1	CALC	ASSIGNMENT	LINE	OBS	CM-1	CALC	ASSIGNMENT	LINE	OBS	CM-1	CALC	ASSIGNMENT
872	18060.048	0.048	R 88	(23-0)	887	18056.586	6.600	P121	(27-1)	902	18052.694	2.691	P 66	(25-1)	921	18048.551	8.562	P 39	(22-0)
873	18059.997	9.992	P120	(27-1)			6.585	P 60	(25-1)	903	18052.495	2.507	P 35	(22-0)			8.542	R 43	(22-0)
874	18059.907	9.914	P 26	(22-0)			6.581	R142	(25-0)			2.449	R 39	(22-0)	922	18048.300	8.298	R103	(26-1)
		9.903	R 30	(22-0)	888	18056.413	6.412	R100	(26-1)			2.456	R121	(24-0)	923	18048.082	8.080	P 65	(25-1)
875	18059.802	9.801	P 58	(25-1)	889	18056.040	6.103	R160	(26-0)	904	18052.373	2.371	P 98	(26-1)	924	18047.496	7.518	P 40	(22-0)
876	18059.755	9.754	P115	(24-0)			6.049	P 31	(22-0)		18052.085					7.493	R 44	(22-0)	
	18059.568						6.035	R 64	(25-1)		18051.926					7.476	R 69	(25-1)	
	18059.488	9.489	P171	(27-0)			6.034	R 35	(22-0)	905	18051.674	1.672	R161	(26-0)		7.467	P127	(27-1)	
877	18059.274	9.273	R 62	(25-1)	890	18055.974	5.973	P 86	(23-0)	906	18051.551	1.561	P 63	(25-1)	925	18047.214	7.214	P119	(24-0)
878	18059.183	9.191	P 27	(22-0)		18055.831					1.560	P 36	(22-0)			7.212	R162	(26-0)	
		9.179	R 99	(26-1)	891	18055.563	5.593	R120	(24-0)		1.540	R 40	(22-0)	926	18047.003	7.002	P141	(25-0)	
879	18059.063	9.062	R 31	(26-1)			5.560	R 90	(23-0)	907	18051.397	1.397	P 88	(23-0)	927	18046.917	6.917	P100	(26-1)
	18058.986	8.987	P156	(26-0)	892	18055.193	5.201	P 32	(22-0)	908	18050.973	1.031	R102	(26-1)	928	18046.717	6.716	P 90	(23-0)
	18058.910						5.185	R 36	(22-0)		0.980	R 67	(25-1)		18046.584				
	18058.827				893	18055.060	5.057	P 97	(26-1)		0.967	R 92	(23-0)	929	18046.429	6.445	P 41	(22-0)	
880	18058.702	8.702	R119	(24-0)	894	18054.939	4.937	P 61	(25-1)		0.943	R126	(27-1)		18046.274	6.419	R 45	(22-0)	
881	18058.435	8.477	P138	(25-0)	895	18054.681	4.681	P139	(25-0)	909	18050.856	0.856	P140	(25-0)	930	18046.274	6.300	P 66	(25-1)
		8.443	P 28	(22-0)		18054.588	4.589	P157	(26-0)	910	18050.574	0.587	P 37	(22-0)			6.270	R 94	(23-0)
		8.430	R 32	(22-0)			4.542	P172	(27-0)		0.566	R 41	(22-0)			6.252	P124	(27-1)	
882	18058.217	8.222	P 85	(23-0)		18054.375	4.390	R125	(27-1)	911	18050.390	0.390	P118	(24-0)	931	18046.100	6.100	R123	(24-0)
	18058.104	8.206	P 59	(25-1)			4.376	R 65	(25-1)		18050.159	0.161	P158	(26-0)	932	18045.689	5.703	P159	(26-0)
	18057.995				896	18054.318	4.328	P 33	(22-0)		18050.024					5.685	R 70	(25-1)	
883	18057.816	7.817	R 89	(23-0)			4.311	R 37	(22-0)	912	18049.836	9.834	P 64	(25-1)	933	18045.542	5.538	R104	(26-1)
		7.808	R124	(27-1)		18054.122	3.735	R101	(26-1)	913	18049.732	9.730	P123	(27-1)	934	18045.332	5.349	R146	(28-1)
884	18057.663	7.716	P 96	(26-1)	897	18053.700	3.698	P 87	(23-0)	914	18049.659	9.657	P 99	(26-1)		5.347	P 42	(22-0)	
		7.670	P 29	(22-0)	898	18053.539	3.556	R144	(28-1)	915	18049.576	9.589	P 38	(22-0)		5.320	R 46	(22-0)	
		7.667	R 63	(25-1)		18053.420	3.538	P117	(24-0)		9.567	R 42	(22-0)	935	18045.105	5.035	R145	(25-0)	
		7.656	R 33	(22-0)	899	18053.420	3.430	P 34	(22-0)		9.565	P173	(27-0)		18045.035	4.556	P174	(27-0)	
		7.613	R143	(28-1)			3.413	R 38	(22-0)	916	18049.291	9.292	R122	(24-0)	936	18044.495	4.556	P143	(28-1)
	18057.249				900	18053.272	3.277	R 91	(23-0)	917	18049.245	9.241	R 68	(25-1)		4.538	P147	(28-1)	
885	18056.864	6.872	P 30	(22-0)			3.262	P 62	(25-1)	918	18049.070	9.069	P 89	(23-0)		4.493	P 67	(25-1)	
		6.858	R 34	(22-0)		18053.179	3.180	P122	(27-1)	919	18048.917	8.912	R144	(25-0)	937	18044.338	4.337	P 91	(23-0)
		6.789	P140	(28-1)	901	18052.758	2.761	R143	(25-0)	920	18048.633	8.652	P142	(28-1)	938	18044.205	4.224	P 43	(22-0)
		6.660	P116	(24-0)			2.736	P141	(28-1)		8.632	R 93	(23-0)		4.195	R 47	(22-0)		
886	18056.660	6.660	P116	(24-0)											4.146	P101	(26-1)		



LINE	OBS	CM-1	CALC	ASSIGNMENT	LINE	OBS	CM-1	CALC	ASSIGNMENT	LINE	OBS	CM-1	CALC	ASSIGNMENT	LINE	OBS	CM-1	CALC	ASSIGNMENT																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
952	18040.425		0.428 0.394	R129 (27-1) P144 (28-1)	968	18035.661		5.672 5.660 5.643 5.620 5.271	P104 (26-1) P 50 (22-0) P127 (27-1) R 54 (22-0) P144 (25-0)	986	18030.397 18030.216 18030.168 18029.866 18029.734		0.394 0.215 0.166 0.166 9.731	R 78 (25-1) P 54 (22-0) R 58 (22-0) P106 (26-1) R128 (24-0)	1008	18025.719		5.812 5.794 5.732 5.715 5.632	R 61 (22-0) A 4 (24-1) P 1 (24-1) P 5 (24-1) P 2 (24-1)	1026	18023.150		5.108 5.107 5.107 5.479 5.436	P 53 (22-0) P 13 (24-1) P 5 (24-1) R 7 (24-1) R111 (26-1)	1044	18022.847		5.280 5.280 5.280 5.479 5.355	P 13 (24-1) P 13 (24-1) P 13 (24-1) R 7 (24-1) P 4 (24-1)	1062	18023.150		5.108 5.107 5.107 5.479 5.323	P 53 (22-0) P 13 (24-1) P 5 (24-1) R 7 (24-1) R 8 (24-1)	1080	18022.847		5.280 5.280 5.280 5.479 5.217	P 13 (24-1) P 13 (24-1) P 13 (24-1) R 7 (24-1) R150 (25-0)	1098	18022.847		5.280 5.280 5.280 5.479 5.179	P 13 (24-1) P 13 (24-1) P 13 (24-1) R 7 (24-1) P 5 (24-1)	1116	18022.847		5.280 5.280 5.280 5.479 5.144	P 13 (24-1) P 13 (24-1) P 13 (24-1) R 7 (24-1) P 6 (24-1)	1134	18022.847		5.280 5.280 5.280 5.479 5.111	P 13 (24-1) P 13 (24-1) P 13 (24-1) R 7 (24-1) P 8 (24-1)	1152	18022.847		5.280 5.280 5.280 5.479 5.081	P 13 (24-1) P 13 (24-1) P 13 (24-1) R 7 (24-1) P 75 (25-1)	1170	18022.847		5.280 5.280 5.280 5.479 9.069	P 13 (24-1) P 13 (24-1) P 13 (24-1) R 7 (24-1) R166 (26-0)	1188	18022.847		5.280 5.280 5.280 5.479 9.005	P 13 (24-1) P 13 (24-1) P 13 (24-1) R 7 (24-1) R101 (23-0)	1206	18022.847		5.280 5.280 5.280 5.479 5.144	P 13 (24-1) P 13 (24-1) P 13 (24-1) R 7 (24-1) P 5 (24-1)	1224	18022.847		5.280 5.280 5.280 5.479 5.111	P 13 (24-1) P 13 (24-1) P 13 (24-1) R 7 (24-1) P 8 (24-1)	1242	18022.847		5.280 5.280 5.280 5.479 5.081	P 13 (24-1) P 13 (24-1) P 13 (24-1) R 7 (24-1) P 75 (25-1)	1260	18022.847		5.280 5.280 5.280 5.479 9.069	P 13 (24-1) P 13 (24-1) P 13 (24-1) R 7 (24-1) R166 (26-0)	1278	18022.847		5.280 5.280 5.280 5.479 9.005	P 13 (24-1) P 13 (24-1) P 13 (24-1) R 7 (24-1) R101 (23-0)	1296	18022.847		5.280 5.280 5.280 5.479 5.144	P 13 (24-1) P 13 (24-1) P 13 (24-1) R 7 (24-1) P 5 (24-1)	1314	18022.847		5.280 5.280 5.280 5.479 5.111	P 13 (24-1) P 13 (24-1) P 13 (24-1) R 7 (24-1) P 8 (24-1)	1332	18022.847		5.280 5.280 5.280 5.479 5.081	P 13 (24-1) P 13 (24-1) P 13 (24-1) R 7 (24-1) P 75 (25-1)	1350	18022.847		5.280 5.280 5.280 5.479 9.069	P 13 (24-1) P 13 (24-1) P 13 (24-1) R 7 (24-1) R166 (26-0)	1368	18022.847		5.280 5.280 5.280 5.479 9.005	P 13 (24-1) P 13 (24-1) P 13 (24-1) R 7 (24-1) R101 (23-0)	1386	18022.847		5.280 5.280 5.280 5.479 5.144	P 13 (24-1) P 13 (24-1) P 13 (24-1) R 7 (24-1) P 5 (24-1)	1404	18022.847		5.280 5.280 5.280 5.479 5.111	P 13 (24-1) P 13 (24-1) P 13 (24-1) R 7 (24-1) P 8 (24-1)	1422	18022.847		5.280 5.280 5.280 5.479 5.081	P 13 (24-1) P 13 (24-1) P 13 (24-1) R 7 (24-1) P 75 (25-1)	1440	18022.847		5.280 5.280 5.280 5.479 9.069	P 13 (24-1) P 13 (24-1) P 13 (24-1) R 7 (24-1) R166 (26-0)	1458	18022.847		5.280 5.280 5.280 5.479 9.005	P 13 (24-1) P 13 (24-1) P 13 (24-1) R 7 (24-1) R101 (23-0)	1476	18022.847		5.280 5.280 5.280 5.479 5.144	P 13 (24-1) P 13 (24-1) P 13 (24-1) R 7 (24-1) P 5 (24-1)	1494	18022.847		5.280 5.280 5.280 5.479 5.111	P 13 (24-1) P 13 (24-1) P 13 (24-1) R 7 (24-1) P 8 (24-1)	1512	18022.847		5.280 5.280 5.280 5.479 5.081	P 13 (24-1) P 13 (24-1) P 13 (24-1) R 7 (24-1) P 75 (25-1)	1530	18022.847		5.280 5.280 5.280 5.479 9.069	P 13 (24-1) P 13 (24-1) P 13 (24-1) R 7 (24-1) R166 (26-0)	1548	18022.847		5.280 5.280 5.280 5.479 9.005	P 13 (24-1) P 13 (24-1) P 13 (24-1) R 7 (24-1) R101 (23-0)	1566	18022.847		5.280 5.280 5.280 5.479 5.144	P 13 (24-1) P 13 (24-1) P 13 (24-1) R 7 (24-1) P 5 (24-1)	1584	18022.847		5.280 5.280 5.280 5.479 5.111	P 13 (24-1) P 13 (24-1) P 13 (24-1) R 7 (24-1) P 8 (24-1)	1602	18022.847		5.280 5.280 5.280 5.479 5.081	P 13 (24-1) P 13 (24-1) P 13 (24-1) R 7 (24-1) P 75 (25-1)	1620	18022.847		5.280 5.280 5.280 5.479 9.069	P 13 (24-1) P 13 (24-1) P 13 (24-1) R 7 (24-1) R166 (26-0)	1638	18022.847		5.280 5.280 5.280 5.479 9.005	P 13 (24-1) P 13 (24-1) P 13 (24-1) R 7 (24-1) R101 (23-0)	1656	18022.847		5.280 5.280 5.280 5.479 5.144	P 13 (24-1) P 13 (24-1) P 13 (24-1) R 7 (24-1) P 5 (24-1)	1674	18022.847		5.280 5.280 5.280 5.479 5.111	P 13 (24-1) P 13 (24-1) P 13 (24-1) R 7 (24-1) P 8 (24-1)	1692	18022.847		5.280 5.280 5.280 5.479 5.081	P 13 (24-1) P 13 (24-1) P 13 (24-1) R 7 (24-1) P 75 (25-1)	1710	18022.847		5.280 5.280 5.280 5.479 9.069	P 13 (24-1) P 13 (24-1) P 13 (24-1) R 7 (24-1) R166 (26-0)	1728	18022.847		5.280 5.280 5.280 5.479 9.005	P 13 (24-1) P 13 (24-1) P 13 (24-1) R 7 (24-1) R101 (23-0)	1746	18022.847		5.280 5.280 5.280 5.479 5.144	P 13 (24-1) P 13 (24-1) P 13 (24-1) R 7 (24-1) P 5 (24-1)	1764	18022.847		5.280 5.280 5.280 5.479 5.111	P 13 (24-1) P 13 (24-1) P 13 (24-1) R 7 (24-1) P 8 (24-1)	1782	18022.847		5.280 5.280 5.280 5.479 5.081	P 13 (24-1) P 13 (24-1) P 13 (24-1) R 7 (24-1) P 75 (25-1)	1800	18022.847		5.280 5.280 5.280 5.479 9.069	P 13 (24-1) P 13 (24-1) P 13 (24-1) R 7 (24-1) R166 (26-0)	1818	18022.847		5.280 5.280 5.280 5.479 9.005	P 13 (24-1) P 13 (24-1) P 13 (24-1) R 7 (24-1) R101 (23-0)	1836	18022.847		5.280 5.280 5.280 5.479 5.144	P 13 (24-1) P 13 (24-1) P 13 (24-1) R 7 (24-1) P 5 (24-1)	1854	18022.847		5.280 5.280 5.280 5.479 5.111	P 13 (24-1) P 13 (24-1) P 13 (24-1) R 7 (24-1) P 8 (24-1)	1872	18022.847		5.280 5.280 5.280 5.479 5.081	P 13 (24-1) P 13 (24-1) P 13 (24-1) R 7 (24-1) P 75 (25-1)	1890	18022.847		5.280 5.280 5.280 5.479 9.069	P 13 (24-1) P 13 (24-1) P 13 (24-1) R 7 (24-1) R166 (26-0)	1908	18022.847		5.280 5.280 5.280 5.479 9.005	P 13 (24-1) P 13 (24-1) P 13 (24-1) R 7 (24-1) R101 (23-0)	1926	18022.847		5.280 5.280 5.280 5.479 5.144	P 13 (24-1) P 13 (24-1) P 13 (24-1) R 7 (24-1) P 5 (24-1)	1944	18022.847		5.280 5.280 5.280 5.479 5.111	P 13 (24-1) P 13 (24-1) P 13 (24-1) R 7 (24-1) P 8 (24-1)	1962	18022.847		5.280 5.280 5.280 5.479 5.081	P 13 (24-1) P 13 (24-1) P 13 (24-1) R 7 (24-1) P 75 (25-1)	1980	18022.847		5.280 5.280 5.280 5.479 9.069	P 13 (24-1) P 13 (24-1) P 13 (24-1) R 7 (24-1) R166 (26-0)	1998	18022.847		5.280 5.280 5.280 5.479 9.005	P 13 (24-1) P 13 (24-1) P 13 (24-1) R 7 (24-1) R101 (23-0)	2016	18022.847		5.280 5.280 5.280 5.479 5.144	P 13 (24-1) P 13 (24-1) P 13 (24-1) R 7 (24-1) P 5 (24-1)	2034	18022.847		5.280 5.280 5.280 5.479 5.111	P 13 (24-1) P 13 (24-1) P 13 (24-1) R 7 (24-1) P 8 (24-1)	2052	18022.847		5.280 5.280 5.280 5.479 5.081	P 13 (24-1) P 13 (24-1) P 13 (24-1) R 7 (24-1) P 75 (25-1)	2070	18022.847		5.280 5.280 5.280 5.479 9.069	P 13 (24-1) P 13 (24-1) P 13 (24-1) R 7 (24-1) R166 (26-0)	2088	18022.847		5.280 5.280 5.280 5.479 9.005	P 13 (24-1) P 13 (24-1) P 13 (24-1) R 7 (24-1) R101 (23-0)	2106	18022.847		5.280 5.280 5.280 5.479 5.144	P 13 (24-1) P 13 (24-1) P 13 (24-1) R 7 (24-1) P 5 (24-1)	2124	18022.847		5.280 5.280 5.280 5.479 5.111	P 13 (24-1) P 13 (24-1) P 13 (24-1) R 7 (24-1) P 8 (24-1)	2142	18022.847		5.280 5.280 5.280 5.479 5.081	P 13 (24-1) P 13 (24-1) P 13 (24-1) R 7 (24-1) P 75 (25-1)	2160	18022.847		5.280 5.280 5.280 5.479 9.069	P 13 (24-1) P 13 (24-1) P 13 (24-1) R 7 (24-1) R166 (26-0)	2178	18022.847		5.280 5.280 5.280 5.479 9.005	P 13 (24-1) P 13 (24-1) P 13 (24-1) R 7 (24-1) R101 (23-0)	2196	18022.847		5.280 5.280 5.280 5.479 5.144	P 13 (24-1) P 13 (24-1) P 13 (24-1) R 7 (24-1) P 5 (24-1)	2214	18022.847		5.280 5.280 5.280 5.479 5.111	P 13 (24-1) P 13 (24-1) P 13 (24-1) R 7 (24-1) P 8 (24-1)	2232	18022.847		5.280 5.280 5.280 5.479 5.081	P 13 (24-1) P 13 (24-1) P 13 (24-1) R 7 (24-1) P 75 (25-1)	2250	18022.847		5.280 5.280 5.280 5.479 9.069	P 13 (24-1) P 13 (24-1) P 13 (24-1) R 7 (24-1) R166 (26-0)	2268	18022.847		5.280 5.280 5.280 5.479 9.005	P 13 (24-1) P 13 (24-1) P 13 (24-1) R 7 (24-1) R101 (23-0)	2286	18022.847		5.280 5.280 5.280 5.479 5.144	P 13 (24-1) P 13 (24-1) P 13 (24-1) R 7 (24-1) P 5 (24-1)	2304	18022.847		5.280 5.280 5.280 5.479 5.111	P 13 (24-1) P 13 (24-1) P 13 (24-1) R 7 (24-1) P 8 (24-1)	2322	18022.847		5.280 5.280 5.280 5.479 5.081	P 13 (24-1) P 13 (24-1) P 13 (24-1) R 7 (24-1) P 75 (25-1)	2340	18022.847		5.280 5.280 5.280 5.479 9.069	P 13 (24-1) P 13 (24-1) P 13 (24-1) R 7 (24-1) R166 (26-0)	2358	18022.847		5.280 5.280 5.280 5.479 9.005	P 13 (24-1) P 13 (24-1) P 13 (24-1) R 7 (24-1) R101 (23-0)	2376	18022.847		5.280 5.280 5.280 5.479 5.144	P 13 (24-1) P 13 (24-1) P 13 (24-1) R 7 (24-1) P 5 (24-1)	2394	18022.847		5.280 5.280 5.280 5.479 5.111	P 13 (24-1) P 13 (24-1) P 13 (24-1) R 7 (24-1) P 8 (24-1)	2412	18022.847		5.280 5.280 5.280 5.479 5.081	P 13 (24-1) P 13 (24-1) P 13 (24-1) R 7 (24-1) P 75 (25-1)	2430	18022.847		5.280 5.280 5.280 5.479 9.069	P 13 (24-1) P 13 (24-1) P 13 (24-1) R 7 (24-1) R166 (26-0)	2448	18022.847		5.280 5.280 5.280 5.479 9.005	P 13 (24-1) P 13 (24-1) P 13 (24-1) R 7 (24-1) R101 (23-0)	2466	18022.847		5.280 5.280 5.280 5.479 5.144	P 13 (24-1) P 13 (24-1) P 13 (24-1) R 7 (24-1) P 5 (24-1)	2484	18022.847		5.280 5.280 5.280 5.479 5.111	P 13 (24-1) P 13 (24-1) P 13 (24-1) R 7 (24-1) P 8 (24-1)	2502	18022.847		5.280 5.280 5.280 5.479 5.081	P 13 (24-1) P 13 (24-1) P 13 (24-1) R 7 (24-1) P 75 (25-1)	2520	18022.847		5.280 5.280 5.280 5.479 9.069	P 13 (24-1) P 13 (24-1) P 13 (24-1) R 7 (24-1) R166 (26-0)	2538	18022.847		5.280 5.280 5.280 5.479 9.005	P 13 (24-1) P 13 (24-1) P 13 (24-1) R 7 (24-1) R101 (23-0)	2556	18022.847		5.280 5.280 5.280 5.479 5.144	P 13 (24-1) P 13 (24-1) P 13 (24-1) R 7 (24-1) P 5 (24-1)	2574	18022.847		5.280 5.280 5.280 5.479 5.111	P 13 (24-1) P 13 (24-1) P 13 (24-1) R 7 (24-1) P 8 (24-1)	2592	18022.847		5.280 5.280 5.280 5.479 5.081	P 13 (24-1) P 13 (24-1) P 13 (24-1) R 7 (24-1) P 75 (25-1)	2610	18022.847		5.280 5.280 5.280 5.479 9.069	P 13 (24-1) P 13 (24-1) P 13 (24-1) R 7 (24-1) R166 (26-0)	2628	18022.847		5.280 5.280 5.280 5.479 9.005	P 13 (24-1) P 13 (24-1) P 13 (24-1) R 7 (24-1) R101 (23-0)	2646	18022.847		5.280 5.280 5.280 5.479 5.144	P 13 (24-1) P 13 (24-1) P 13 (24-1) R 7 (24-1) P 5 (24-1)	2664	18022.847		5.280 5.280 5.280 5.479 5.111	P 13 (24-1) P 13 (24-1) P 13 (24-1) R 7 (24-1) P 8 (24-1)	2682	18022.847		5.280 5.280 5.280 5.479 5.081	P 13 (24-1) P 13 (24-1) P 13 (24-1) R 7 (24-1) P 75 (25-1)	2700	18022.847		5.280 5.280 5.280 5.479 9.069	P 13 (24-1) P 13 (24-1) P 13 (24-1) R 7 (24-1) R166 (26-0)	2718	18022.847		5.280 5.280



LL

LINE	OBS	CM-1	CALC	ASSIGNMENT	LINE	OBS	CM-1	CALC	ASSIGNMENT	LINE	OBS	CM-1	CALC	ASSIGNMENT	LINE	OBS	CM-1	CALC	ASSIGNMENT	
	18020.115				1067	18016.493	6.491	P 63 (22-0)	1089	18013.085	3.088	R 69 (22-0)		18008.751	8.750	P113 (26-1)	1131	18004.251	4.247	R 90 (25-1)
1046	18019.979	0.010	P 19 (24-1)		1068	18016.422	6.440	P102 (23-0)		18012.980	3.074	R 33 (24-1)	1110	18008.700	8.697	R 38 (24-1)		18003.965	4.239	P168 (26-0)
		9.969	R 83 (25-1)				6.420	R 67 (22-0)		18012.679	2.980	R153 (25-0)	1109	18008.281	8.281	P105 (23-0)	1132	18003.901	3.897	P118 (26-1)
1047	18019.902	9.900	R 23 (24-1)				6.404	P 81 (25-1)	1090	18012.679	2.675	R133 (24-0)	1111	18007.986	7.984	P 68 (22-0)	1133	18003.901	3.897	P 39 (24-1)
	18019.822	9.817	R168 (26-0)				6.402	R114 (26-1)	1091	18012.423	2.420	P 30 (24-1)			7.943	P 35 (24-1)	1132	18003.678	3.675	R 43 (24-1)
1048	18019.719	9.717	P 61 (22-0)	1069	18016.258	6.255	P 25 (24-1)	1092	18012.253	2.250	R 34 (24-1)	1112	18007.903	7.899	R 72 (22-0)	1134	18003.452	3.478	R139 (27-1)	
1049	18019.653	9.652	R 65 (22-0)	1070	18016.119	6.141	R132 (24-0)		18012.084			1113	18007.746	7.744	R 39 (24-1)			3.448	P102 (24-0)	
1050	18019.583	9.580	R131 (24-0)			6.113	R 29 (24-1)	1093	18011.969	1.965	P 83 (25-1)	1114	18007.697	7.693	R109 (23-0)	1135	18002.824	2.822	P 40 (24-1)	
1051	18019.448	9.448	P 20 (24-1)	1071	18015.883	5.883	R106 (23-0)	1094	18011.856	1.853	P112 (26-1)	1115	18007.420	7.419	P 85 (25-1)	1136	18002.766	2.765	P 87 (25-1)	
		9.442	R113 (26-1)	1072	18015.615	5.611	R 85 (25-1)	1095	18011.579	1.576	P 31 (24-1)		18007.297	7.305	R138 (27-1)	1137	18002.713	2.732	P152 (25-0)	
1052	18019.336	9.333	R 24 (24-1)	1073	18015.542	5.539	P 26 (24-1)	1096	18011.465	1.463	P 66 (22-0)	1116	18007.119	7.116	R117 (26-1)			2.710	P107 (23-0)	
	18019.229	9.231	P148 (25-0)	1074	18015.394	5.392	R 30 (24-1)	1097	18011.390	1.401	R 35 (24-1)	1117	18006.976	6.979	P131 (24-0)	1138	18002.583	2.593	R 44 (24-1)	
		9.218	P149 (28-1)	1075	18015.151	5.149	P149 (25-0)			1.384	R 70 (22-0)			6.970	P 36 (24-1)			2.577	P 71 (22-0)	
1053	18019.109	9.107	P101 (23-0)			5.145	R169 (26-0)	1098	18011.149	1.146	R 87 (25-1)		18006.903	6.900	P151 (25-0)	1139	18002.481	2.482	R 75 (22-0)	
1054	18018.864	8.861	P 21 (24-1)	1076	18014.930	4.928	P111 (26-1)			1.103	R137 (27-1)	1118	18006.767	6.765	R 40 (24-1)			2.461	P115 (26-1)	
1055	18018.743	8.740	R 25 (24-1)	1077	18014.842	4.892	P150 (28-1)	1099	18011.029	1.039	P150 (25-0)	1119	18006.577	6.574	R 89 (25-1)		18002.250	2.250	P136 (27-1)	
1056	18018.568	8.610	R135 (27-1)			4.871	R136 (27-1)			1.027	P104 (23-0)	1120	18006.069	6.067	P 69 (22-0)	1140	18002.106	2.110	R136 (24-0)	
		8.584	P 80 (25-1)			4.840	P 64 (22-0)	1100	18010.711	0.706	P 32 (24-1)	1121	18006.120	6.147	P152 (28-1)			2.101	R111 (23-0)	
	18018.333	8.330	P165 (26-0)	1078	18014.772	4.798	P 27 (24-1)	1101	18010.528	0.535	P151 (28-1)			6.119	R 73 (22-0)	1141	18001.896	1.894	R 91 (25-1)	
1057	18018.248	8.248	P 22 (24-1)			4.767	R 68 (22-0)			0.525	R 36 (24-1)	1122	18005.975	5.972	P 37 (24-1)	1142	18001.724	1.729	P153 (28-1)	
1058	18018.121	8.122	R 26 (24-1)	1079	18014.648	4.645	R 31 (24-1)	1102	18010.455	0.482	P130 (24-0)	1123	18005.764	5.761	R 41 (24-1)			1.720	P 41 (24-1)	
		8.116	P 62 (22-0)	1080	18014.034	4.031	P 28 (24-1)			0.450	R108 (23-0)			5.710	R171 (26-0)	1143	18001.489	1.485	R 45 (24-1)	
1059	18018.051	8.049	R 66 (22-0)	1081	18014.034	4.031	P 28 (24-1)			0.443	R170 (26-0)			5.710	R171 (26-0)	18000.949	0.947	R172 (26-0)		
1060	18017.980	7.975	P110 (26-1)	1082	18013.960	3.959	P129 (24-0)	1103	18010.243	0.240	R116 (26-1)	1124	18005.657	5.659	R135 (24-0)	18000.785	0.784	R119 (26-1)		
1061	18017.806	7.804	R 84 (25-1)	1083	18013.875	3.873	R 32 (24-1)	1104	18009.814	9.815	P134 (27-1)			5.620	P114 (26-1)	1144	18000.726	0.724	P 72 (22-0)	
1062	18017.612	7.609	P 23 (24-1)	1084	18013.747	3.746	P103 (23-0)			9.811	P 33 (24-1)	1125	18005.509	5.508	P106 (23-0)	1145	18000.619	0.625	R 76 (22-0)	
1063	18017.481	7.478	R 27 (24-1)		18013.650	3.663	P166 (26-0)	1105	18009.736	9.736	P 67 (22-0)	1126	18005.108	5.105	P 86 (25-1)			0.593	P 42 (24-1)	
1064	18017.407	7.407	P128 (24-0)			3.643	P133 (27-1)			9.705	P 84 (25-1)	1127	18004.916	4.947	P 38 (24-1)		18000.485	0.483	R156 (25-0)	
		7.383	P132 (27-1)	1085	18013.396	3.392	R 86 (25-1)	1106	18009.648	9.654	R 71 (22-0)			4.911	R110 (23-0)	18000.396	0.398	P 88 (25-1)		
	18017.089	7.088	R152 (25-0)	1086	18013.344	3.335	R115 (26-1)			9.624	R 37 (24-1)	1128	18004.732	4.731	R 42 (24-1)	1146	18000.356	0.352	R 46 (24-1)	
1065	18016.948	6.945	P 24 (24-1)	1087	18013.239	3.238	P 29 (24-1)	1107	18009.184	9.181	R134 (24-0)			4.678	R155 (25-0)	17999.996				
1066	18016.811	6.809	R 28 (24-1)	1088	18013.171	3.180	R107 (23-0)		18008.970	8.966	P167 (26-0)	1129	18004.407	4.405	P 70 (22-0)	1147	17999.886	9.889	P138 (24-0)	
						3.164	P 65 (22-0)	1108	18008.885	8.890	P 34 (24-1)	1130	18004.313	4.313	R 74 (22-0)			9.884	P108 (23-0)	
										8.874	R 83 (25-1)									
										8.844	R154 (25-0)									

Table 2. Interpolation parameters^a obtained from least squares fits of individual ($v'-v''$) bands to equations (1).

$v'-v''$	P Branch			R Branch			Std. Dev. of Fit (cm^{-1})	$\nu_0 \times 10^{-5}$ (cm^{-1})	$B' \times 10^1$ (cm^{-1})	$B'' \times 10^1$ (cm^{-1})	$D' \times 10^7$ (cm^{-1})	$D'' \times 10^8$ (cm^{-1})	$H' \times 10^{13}$ (cm^{-1})	$H'' \times 10^{14}$ (cm^{-1})	$L' \times 10^{18}$ (cm^{-1})
	J_{\min}	J_{\max}	No. Lines Fit	J_{\min}	J_{\max}	No. Lines Fit									
45-0	11	167	73	13	163	77	0.0024	0.195163613	0.18018728	0.37299442	0.277981	0.33354	-1.34323	-3.1957	-1.8958
44-0	22	157	75	7	161	72	0.0022	0.194759905	0.18394367	0.37313127	0.279128	0.46582	-0.88318	0.1893	-1.6130
43-0 ^b	27	152	52	10	163	63	0.0027	0.194336823	0.18722787	0.37284063	0.246293	0.22560	-1.12772	-5.4578	-1.8808
42-0	12	175	87	14	174	82	0.0024	0.193894140	0.19094128	0.37308710	0.248824	0.43113	-0.95171	-0.5887	-0.9056
41-0	7	171	81	9	173	94	0.0025	0.193431465	0.19436945	0.37307194	0.233181	0.39122	-1.03320	-1.7714	-0.6655
40-0	8	171	94	6	173	92	0.0022	0.192948559	0.19786561	0.37315117	0.234316	0.46486	-0.57164	-0.1072	-0.9103
39-0	5	171	95	5	169	88	0.0021	0.192445316	0.20116427	0.37311621	0.224764	0.45068	-0.38998	-0.3671	-1.0901
38-0	7	175	84	7	178	90	0.0020	0.191921469	0.20453472	0.37322028	0.224938	0.54155	-0.01774	1.9019	-1.2150
37-0	5	178	90	6	177	100	0.0022	0.191376895	0.20762792	0.37313737	0.201702	0.45137	-0.43993	-0.4603	-0.7966
36-0	4	170	92	5	178	111	0.0023	0.190811385	0.21082957	0.37320255	0.198457	0.54288	-0.37426	1.9948	-0.3438
35-0	5	179	105	5	169	107	0.0021	0.190224898	0.21385144	0.37312974	0.183564	0.48768	-0.56247	0.9779	
34-0	9	176	98	12	179	99	0.0019	0.189617408	0.21683688	0.37306535	0.170785	0.41564	-0.64132	-0.8193	
33-0	13	174	85	14	181	107	0.0025	0.188988936	0.21976994	0.37303719	0.161443	0.39176	-0.65357	-1.5785	
32-0 ^c	7	172	71	6	179	88	0.0023	0.188339425	0.22270804	0.37309719	0.156107	0.42573	-0.58491	-0.9737	
31-0 ^d	31	172	70	5	178	74	0.0028	0.187668755	0.22521063	0.37275425	0.132334	0.25073	-0.80653	-3.6445	
30-0	11	179	97	7	175	90	0.0015	0.186977046	0.22836349	0.37311068	0.147624	0.45179	-0.39097	-0.1603	
29-0	7	170	101	5	179	112	0.0016	0.186264451	0.23105991	0.37308489	0.138863	0.41706	-0.42877	-1.0541	
28-0	6	173	95	4	175	94	0.0017	0.185530998	0.23372552	0.37309320	0.133996	0.42405	-0.39673	-1.0795	
27-0	5	177	107	5	170	114	0.0024	0.184776805	0.23640338	0.37318390	0.136129	0.51231	-0.17679	1.1841	
26-0	5	171	114	10	172	110	0.0017	0.184001954	0.23892968	0.37316711	0.129675	0.50398	-0.18282	1.1061	
25-0	7	177	119	7	179	111	0.0015	0.183206599	0.24133627	0.37305832	0.119061	0.42247	-0.28070	-0.5431	
24-0	8	168	116	8	174	112	0.0015	0.182391040	0.24375738	0.37304948	0.113625	0.40877	-0.28981	-0.9579	
23-0	17	169	94	5	172	92	0.0017	0.181555307	0.24621734	0.37313994	0.115061	0.46874	-0.16403	0.1433	
22-0 ^e	15	164	65	5	170	71	0.0027	0.180699558	0.24864723	0.37324815	0.117127	0.53405	-0.05612	1.2097	
31-1	34	123	17	27	137	20	0.0021	0.185535703	0.22570051	0.37207962	0.159268	0.50413	-0.22472	1.8374	
30-1	9	146	38	12	129	33	0.0020	0.184844042	0.22840061	0.37199561	0.149532	0.45175	-0.34218	-0.6779	
29-1	8	154	38	7	145	44	0.0026	0.184131473	0.23120341	0.37210813	0.152554	0.58087	-0.05690	3.1710	
28-1	12	154	52	8	150	34	0.0023	0.183397930	0.23380043	0.37202312	0.145406	0.55583	-0.01508	3.3062	
27-1	7	163	52	7	156	52	0.0016	0.182643739	0.23631178	0.37191287	0.131330	0.44247	-0.25016	-0.0205	
26-1	6	156	43	7	157	43	0.0012	0.181869034	0.23888172	0.37196383	0.126468	0.45627	-0.25907	-0.1474	
25-1	5	157	57	8	157	69	0.0015	0.181073699	0.24139129	0.37198067	0.123166	0.46501	-0.21543	-0.1149	
24-1	10	167	71	5	161	76	0.0017	0.180258069	0.24382636	0.37198675	0.120973	0.49687	-0.10304	1.1659	
37-2	11	114	21	12	114	25	0.0023	0.187123221	0.20767058	0.37091688	0.216472	0.68350	-0.00006	9.1877	
36-2	8	110	25	11	105	20	0.0026	0.186557601	0.21072968	0.37073115	0.193327	0.37002			
35-2	11	107	21	10	106	20	0.0024	0.185971212	0.21404409	0.37097251	0.202416	0.55783			
34-2	15	109	18	33	108	16	0.0026	0.185363708	0.21686690	0.37075985	0.181556	0.42558			
33-2	24	115	20	40	109	21	0.0024	0.184735201	0.22001681	0.37096045	0.191667	0.62031			

^a The parameters in this table are to be used only for calculating interpolated line positions in the P and R branches of individual ($v'-v''$) bands, and are presented here with sufficient significant figures to permit this back calculation to within 0.001 cm^{-1} . These parameters are not to be interpreted as molecular constants, and are thus not given with standard deviations, which in all cases correspond to errors considerably greater than implied by the number of significant figures presented in this table.

^b P and R branches blended from the band origin to P(60) and R(62).

^c P and R branches blended from the band origin to P(35) and R(38).

^d P and R branches blended from the band origin to P(92) and R(95).

^e P and R branches blended from the band origin to P(59) and R(63).

Table 3. Lower state combination differences, $\Delta_2 F''(J)$, for the ($v'-0$) bands calculated from the constants of Table 2 for J values below that of the last transition used in the least squares fit.

J	(45-0)	(44-0)	(43-0) ^a	(42-0)	(41-0)	(40-0)	(39-0)	(38-0)	(37-0)	(36-0)	(35-0)	(34-0)
10	1.567	1.567	1.566	1.567	1.567	1.567	1.567	1.568	1.567	1.567	1.567	1.567
20	3.058	3.059	3.057	3.059	3.059	3.060	3.059	3.060	3.059	3.060	3.059	3.059
30	4.550	4.551	4.548	4.551	4.551	4.551	4.551	4.552	4.551	4.552	4.551	4.551
40	6.041	6.042	6.039	6.042	6.042	6.043	6.042	6.043	6.042	6.043	6.042	6.041
50	7.531	7.533	7.529	7.532	7.532	7.533	7.532	7.534	7.533	7.533	7.532	7.532
60	9.020	9.022	9.018	9.021	9.021	9.022	9.021	9.023	9.022	9.022	9.021	9.021
70	10.508	10.509	10.507	10.509	10.509	10.510	10.509	10.510	10.510	10.510	10.509	10.509
80	11.995	11.996	11.994	11.995	11.996	11.996	11.995	11.996	11.996	11.995	11.995	11.995
90	13.480	13.480	13.480	13.480	13.481	13.480	13.480	13.480	13.481	13.479	13.479	13.480
100	14.963	14.962	14.963	14.962	14.964	14.963	14.962	14.962	14.963	14.961	14.961	14.963
110	16.444	16.443	16.444	16.443	16.444	16.443	16.442	16.442	16.443	16.441	16.442	16.443
120	17.922	17.920	17.923	17.921	17.922	17.921	17.920	17.919	17.921	17.919	17.920	17.921
130	19.397	19.396	19.397	19.396	19.397	19.395	19.395	19.394	19.395	19.394	19.395	19.396
140	20.867	20.868	20.868	20.868	20.868	20.867	20.867	20.867	20.867	20.867	20.868	20.869
150	22.334	22.337	22.333	22.337	22.336	22.336	22.335	22.338	22.336	22.337	22.339	22.338
160	23.795			23.802	23.799	23.801	23.800	23.806	23.800	23.806	23.806	23.803
170				25.263	25.258	25.263	25.262	25.272	25.261	25.272	25.271	25.264

J	(33-0)	(32-0) ^b	(31-0) ^c	(30-0)	(29-0)	(28-0)	(27-0)	(26-0)	(25-0)	(24-0)	(23-0)	(22-0) ^d
10	1.567	1.567	1.566	1.567	1.567	1.567	1.567	1.567	1.567	1.567	1.567	1.568
20	3.059	3.059	3.056	3.059	3.059	3.059	3.060	3.060	3.059	3.059	3.059	3.060
30	4.550	4.551	4.547	4.551	4.551	4.551	4.552	4.552	4.550	4.550	4.551	4.552
40	6.041	6.042	6.037	6.042	6.042	6.042	6.043	6.043	6.041	6.041	6.042	6.044
50	7.531	7.532	7.527	7.532	7.532	7.532	7.533	7.533	7.531	7.531	7.533	7.534
60	9.020	9.021	9.016	9.021	9.021	9.021	9.022	9.022	9.021	9.021	9.022	9.023
70	10.508	10.509	10.504	10.509	10.509	10.509	10.510	10.509	10.508	10.508	10.509	10.511
80	11.995	11.996	11.991	11.995	11.996	11.996	11.996	11.995	11.995	11.995	11.996	11.997
90	13.480	13.480	13.476	13.480	13.480	13.480	13.480	13.480	13.479	13.480	13.480	13.481
100	14.962	14.963	14.960	14.962	14.963	14.963	14.962	14.962	14.962	14.962	14.962	14.963
110	16.443	16.443	16.442	16.442	16.443	16.443	16.442	16.442	16.443	16.443	16.443	16.442
120	17.921	17.921	17.921	17.920	17.921	17.920	17.919	17.920	17.921	17.921	17.920	17.920
130	19.396	19.396	19.397	19.395	19.396	19.395	19.395	19.395	19.396	19.396	19.395	19.394
140	20.867	20.867	20.869	20.868	20.868	20.867	20.867	20.867	20.869	20.868	20.867	20.866
150	22.335	22.335	22.338	22.337	22.336	22.335	22.337	22.338	22.338	22.337	22.337	22.335
160	23.799	23.800	23.801	23.802	23.801	23.799	23.804	23.805	23.804	23.802	23.802	23.801
170	25.259	25.260	25.259	25.264		25.258	25.269	25.269	25.266			

^a P and R branches blended from the band origin to P(60) and R(62).

^b P and R branches blended from the band origin to P(35) and R(38).

^c P and R branches blended from the band origin to P(92) and R(95).

^d P and R branches blended from the band origin to P(59) and R(63).

tion to within 0.001 cm^{-1} , even though this requires in all cases many more significant figures than are physically meaningful.

As a consistency check on the rotational assignments in this atlas, which as mentioned above were determined essentially by extending the calculated branches of Wei and Tellinghuisen to higher J , we present in table 3 a set of ground state combination differences. These $\Delta_2 F''(J)$ values were calculated using $v'' = 0$ parameters taken from the band-by-band least squares fits. Since measured I_2 line-widths (FWHM) on the spectral figures are of the order of 0.055 cm^{-1} , we see that calculated interpolated combination differences agree to 1/20 of the FWHM for $J < 150$ and to 1/5 of the FWHM for higher J .

As a further consistency check, Dr. M. M. Hessel [12] has kindly least squares fit 5741 unblended lines assigned in this work to a 29-parameter Dunham expansion, obtaining an overall standard deviation of 0.0042 cm^{-1} . Such a fit introduces only one set of rotational constants for each vibrational level, and furthermore requires these rotational constants to vary smoothly with vibrational quantum number. The Dunham coefficients obtained are close to true molecular constants, but are not given here since the "best" values for such constants must be determined from a fit of the unblended lines from the entire visible spectrum of I_2 , rather than from a 1000 cm^{-1} portion.

Unfortunately, no independent support for the vibrational assignments arose from the work for this atlas.

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